

TCTTAAA

127

SEQ ID NO:3029

SEQUENCE LENGTH:223

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03572

SEQUENCE DESCRIPTION:

GATCTAGAGT ATAAGCTGCG CAAGGGCAGA AGTTTTTATC TGGTTTGTTT ATGGATGTAT 60
 TCTAAGAGCT GAGAACAGGG CCTGGACACA ATAAGCATT C AATAAATATT TACTGAATGA 120
 ATGAACTCCT ACCTATATTC CTATTTATAA TTTGGCTCCA CTTTATCCTA CTTTAGCTCC 180
 CATTCAATTC AATAAAAAAA ACATTTTTTN GNACACATAT AAA 223

SEQ ID NO:3030

SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03573

SEQUENCE DESCRIPTION:

GATCCATCTC AGTCACTTTT TCCCCTGCAA TCGCTCTTGT GAAATTGTGT AGAGTGTTTG 60
 TGAGCTTTT GTTCCCTCAT TCTGCATTAA TAATAGCTAA TAATAAATGC ATAGAGNAAT 120
 TAAACTGTGA AA 132

SEQ ID NO:3031

SEQUENCE LENGTH:123

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03574

SEQUENCE DESCRIPTION:

GATCCAGTTT TNCTACAAAG AACAAAGTGG TTGACAACAG TGACAGTAAT TNCTGGAGCA 60
 AAACCAAAAG ACATAGGTAA AGANCATATA ATTGTTAATA AAGCACACTG CTTTCAACAC 120
 AAA 123

SEQ ID NO:3032

SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03575

SEQUENCE DESCRIPTION:

GATCCAAGTG TTTTAAACAAT TGGGGCTGTT AAGTCTGACC ATACATCACT GTGATAGAAT 60
 GTGGGCTTTT TCANGGGTGA AGATACAAGT CTTAACCACA GTGTAACCTA CAGTTTCCTT 120
 TAAA 124

SEQ ID NO:3033

SEQUENCE LENGTH:270

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03576

SEQUENCE DESCRIPTION:

5 GATCAGAGCA AGCCTTGCCT CTTATCTTCG GGAAACCAGA ATATGTTTGG GGTGGTAGGA 60
 GCCACACAGA CTCTTCTGAG CCCCCTCACT CACTTCCTTC CCCCTGTGCC TTTCTTTGA 120
 GAGTGAAGGT GGGTNGAGTT GACCAGAGAA AGGGGAGAGA ATTCGGGAAA GACCCAAAGT 180
 NTTTGAATT CTCTTTTGTG CTTTACCTA CAGAAATGGT CACATGGTTC TATTAAATA 240
 10 GCCTAATAAA CACATCTGGA GCCTGTCAAA 270

SEQ ID NO:3034

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03577

SEQUENCE DESCRIPTION:

15 GATCTCAAAG ATACACAGTA CCTACTTAAT TCCAGCTGAT GGGAGACCAA AGAATTTGCA 60
 20 AGTGGATGGT TTGGTATCAC TGTAATAAAA AAGAGGGCCT GGGGAATTCTT GCGATTCCAT 120
 CTCTAAA 127

SEQ ID NO:3035

SEQUENCE LENGTH:120

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03578

SEQUENCE DESCRIPTION:

25 GATCCCTACC TGCTCCCGC TCCGGTTGCC AGCAGCACTC ACTGCACTCC TTTGTCATAT 60
 30 ACTCTGCATC ACTGTCATAC TCACANCTTC GTGAATAAAG TTGTGTGCTT TATTCGTAAA 120

SEQ ID NO:3036

SEQUENCE LENGTH:120

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03579

SEQUENCE DESCRIPTION:

35 GATCAGGGAC CTCACGCATC TTTTCTCAT ATACATGGNC TCTCTGTTGG CCTGCAAACA 60
 40 CATTNCTTC TCCGCTTATN AGACTATTTA NCTTAATAA AGCACTGGAT ATAAATCAAA 120

SEQ ID NO:3037

SEQUENCE LENGTH:176

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03580

SEQUENCE DESCRIPTION:

45 GATCTAAAGC TNAACAATGA AAATCTTCAG CAGAAATAGA AATNGCCGTG GATTGTAATA 60

CACACTGAAA TTCTNACTTT CTGAATTTAA ATGTAGAATA AATTNACCA ACTTGGAGTA 120
CTGTATGAGT ATTTCNAGTA GGGGGAATAA ACTCAAANTT ATATTTNTNT TGCAAA 176

SEQ ID NO:3038

SEQUENCE LENGTH:119

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03581

SEQUENCE DESCRIPTION:

GATCTGAAAT GTCTGAGAGT AATAGTTTCT GTTGAATTTT TTTTGTTC TTTTCTGCA 60
CAGTCCATTC TGTTTNNATT ACTATCTAGG CTTGAAATAT ATAGTTTGAA ATNATGAAA 119

SEQ ID NO:3039

SEQUENCE LENGTH:234

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03582

SEQUENCE DESCRIPTION:

GATCAGAATA TGACATTGCA GTAAAGNGCT TAAATAGTTT CATCTNTGGT TTTTTTTTCT 60
AGACACTTTT CTTTATCCC AGNCATCTCT GAATTTACAT TTTATATTAA AGAAATTGAG 120
CTATCCATAC AACCTGTATT TACTTTAATT TCACTATGCT TTCAGCTTAC TTTATTGTAT 180
GNTATGTAGG TCTAAATAT AGTTTGAGTC AAATAAAATT AGGGGGGCTT TAAA 234

SEQ ID NO:3040

SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03583

SEQUENCE DESCRIPTION:

GATCATGACA CTNAAGCGTG ATGAGACGCT CCAGGATGGC TGTNATACTC ACTTCTGCAA 60
GGTCAATGAG AGAGGAGAGT ACTTCTGGGN GAAGAGGGTC ACAGGCTNCC CACCCTTTNA 120
TGAACACANG TN 132

SEQ ID NO:3041

SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03584

SEQUENCE DESCRIPTION:

GATCCCTAAA AATGTTGAGG GACTTCTGTT CATTCACTCC GAGAACATTG GCTTCCACAT 60
CACAGTATCT ACCCTTACAT GGTITAGGAT TAAAGCCAGG CAATCTTTTA CTATGAAA 118

SEQ ID NO:3042

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03585

SEQUENCE DESCRIPTION:

5 GATCGGACCG TTCATGCTGC CTATAGGCAT TATGTCCCTC AAAAAAAAAAC TCCTTNCCT 60
GCATCCTGTG TACAACATGA CATTTTAAAC CAATCCAATC TAAAAATGTN CCAGAAA 117

SEQ ID NO:3043

SEQUENCE LENGTH:117

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03586

SEQUENCE DESCRIPTION:

15 GATCAGAAGT GGCAGTCTAT AACTNAAAAT GTGGTAAAGT ACTTGANGCA AACATCCCGC 60
ATCGCTGTTG GACCTCTNAN ACTTTCTACT TTAACAGTTT CACAGTCTTT NCCAGTN 117

SEQ ID NO:3044

SEQUENCE LENGTH:116

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03587

SEQUENCE DESCRIPTION:

25 GATCTCCTCC ACCCTGTACC AGGCAGCAGC TCCAGTCCTC ACACCAGCCA AGGTCACAGG 60
CAAGAGCAAG AAGAGAACT GACCCTGAAT GTTCAATAAA GTTGATTCTT TGTAATA 116

SEQ ID NO:3045

SEQUENCE LENGTH:116

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03588

SEQUENCE DESCRIPTION:

35 GATCTGAAAT CNNGGTCTTC CAAGGNAGAA AATCGANCTG GGAATAAAAG AGAAGACCTG 60
TGATGGGGCA GCAGTGACGC NCTGTGGGGG GACAGGTGGA CGTGGAGAGC TCTTTN 116

SEQ ID NO:3046

SEQUENCE LENGTH:116

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03589

SEQUENCE DESCRIPTION:

45 GATCCTGAAG AAATCATATG TTAACATAC TTNACACCT ACTGTGTTAT AAAATATATC 60
ATCAGATGTG CCTTGAGAAT AGTATATGTA ACATTAAAAA AAAGTTGCTG GCTAAA 116

SEQ ID NO:3047

SEQUENCE LENGTH:115

50 SEQUENCE TYPE:nucleic acid

55

EP 0 679 716 A1

TOPOLOGY:linear

CLONE:HUMGS03590

SEQUENCE DESCRIPTION:

5 GATCCTTGGA CTTGTGTTT TTGATTNTAT GTTGATATTC TAAAAACATC TATTTTAATG 60
TTATTTCTGT TCTAAAAATA AGATAATAAA TATTAACAAA CTTTGCTTTT TTAAA 115

SEQ ID NO:3048

SEQUENCE LENGTH:179

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03591

SEQUENCE DESCRIPTION:

15 GATCTCAACA AGAAGCTGTA TTTTAAGTAT TAAGACAGTT CTTTGTTAGC TGGTTTCTAG 60
TTGGTTATCT AGTTACCAAT GCTGCAGTCC TGCAGTCACC TATACATTAT TTAATNTAT 120
TTAACTGTGA AATGCGCTAC CCACCAATAA TGAAATAGAC CTTTATGAAA ACTGTGAAA 179

SEQ ID NO:3049

20 SEQUENCE LENGTH:239

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03592

SEQUENCE DESCRIPTION:

25 GATCCTGAGG AAAGACTTGG AAGAGACCAG CATGTCTTCA GTAGCCAAAC TACTTCTTGA 60
GCATAGATAG GTATAGTGGG TTTNCTTGAG GTGGTAAGGC TTTGCTGGAC CCTGTTGCAG 120
GCAAAAGGAG TAATTGATTT AAAGTACTGT TAATGATGTT AATGATTTNT TTTTAAACTC 180
ATATTATTGG GATTTTCACC CAAAATAATG CTTTTTGAAA AAAGGAAAAA AAAACCGGN 239

SEQ ID NO:3050

SEQUENCE LENGTH:114

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35 CLONE:HUMGS03593

SEQUENCE DESCRIPTION:

40 GATCTTGGCT TTCTNTTCC TCTTCTCCTN CAGGGTGTCT GTNACTGCNN GGTACTTCCA 60
GCCAACCTCG TGAGCCAGGC GCCCCAGATA GGCAAACTTT CTTGTAGGCT TCAN 114

SEQ ID NO:3051

SEQUENCE LENGTH:113

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45 CLONE:HUMGS03594

SEQUENCE DESCRIPTION:

50 GATCTGTATA TGCTATCCTA ACTGTTAATT GTATTATTGA TTATNTTGAT TATCTTGCTT 60
GAAGGTTTCA ACTTTTCAAT TTGATAGAAA TAAAGTTTTT NCCTGCTTAT AAA 113

SEQ ID NO:3052

SEQUENCE LENGTH:113

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03595

SEQUENCE DESCRIPTION:

GATCCTCTCT TCATTTTACT CAGCCAGGTT TTGTACTGAT GTACAGGTGT TAAATNACTT 60

CAAGTATTTT TGTAAGAGGT GTATATAATT CAATAAAAAA GGTAAACAT AAA 113

SEQ ID NO:3053

SEQUENCE LENGTH:161

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03596

SEQUENCE DESCRIPTION:

GATCGACAAG GAGTACTTGC TAAAAATGGC AACAGAGGAG TGAGGAGTGC TGCTGTAGAT 60

GACAACCTCC ATTCTATTTT AGAATAAATT CCCAACTTCT CTTGCTTTCT ATGCTGTTTG 120

TAGTGAAATA ATAGAATGAG CACCCATTCC AAAGCTTTAA A 161

SEQ ID NO:3054

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03597

SEQUENCE DESCRIPTION:

GATCCGNACC CCAAGCCCAT GCAACCCACG CTCGGTCCCG TTCCGGCCCC TGCNCCCCGC 60

TGCNCTTCGC TCCCCGNCCT TGCNCCGTTA GTAAACATCG CTCAAACGAA A 111

SEQ ID NO:3055

SEQUENCE LENGTH:110

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03598

SEQUENCE DESCRIPTION:

GATCTAACAA GTTACATTGT ATAGTTTCTG GGACTGTTTG AATATTCTAT TCCAATGGGC 60

ATTTATTTT TATCCTGTCA TTAATAAAAAA AAGACTGTGA CCCTGCTAAA 110

SEQ ID NO:3056

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03599

SEQUENCE DESCRIPTION:

GATCTCCTCC ATCCTGCTGC CCACCCCTCT TGAGTGCTTT AAGGGACAGA NCTTCCACC 60

CCTGGAAGAT GGAAATAAAC CTGCGTGTGG GTGGAGTGT AGGACCAAA 109

SEQ ID NO:3057

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03600

SEQUENCE DESCRIPTION:

GATCAGAGTG TTNTAAATCA TCACGCCCTT AGCTTATCCC TNGTCGAGCC AGGACACGGG 60

GTGCTTCAGT GGGTCTGTNA CCCTCTCTCC TTGAAGCATG TTGCTGNNN 109

SEQ ID NO:3058

SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03602

SEQUENCE DESCRIPTION:

GATCCCTGAA TGTGAACCTG AAGTTCAAAG GACTTGGAAG GCTCTGGAAT GTGTTGGTTT 60

TTCCCCCAAA AAATGGGTCC TAAGGAGGGT AAAGTGACTT GTTCAAAA 108

SEQ ID NO:3059

SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03603

SEQUENCE DESCRIPTION:

GATCAGTTTC TTTNGCTTCA AGATTGAAA CCAGAAAGGA AAGTCCNACT TGCAGATGAT 60

TGTCCTTAAA ACCTAATGGA AAANTAAAAG ANAGACATAC CATGGAAG 108

SEQ ID NO:3060

SEQUENCE LENGTH:107

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03604

SEQUENCE DESCRIPTION:

GATCCATCAT TGTTACAAA CTTCACGTG AAGAACCTTT TCGTTGCATA ATGTGCAAAT 60

AGTTAAACC ACTGTACTAT ATACTTAAA ATGATTAAGA TAGTAAA 107

SEQ ID NO:3061

SEQUENCE LENGTH:252

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03605

SEQUENCE DESCRIPTION:

GATCTGGCAG CTGAGGCCCG AGGCAGGGTT GGNGTGATGC CAGGGCAAAG TGGTGAGGAG 60

AAAACAGGAA NCGGGCTTTC NCCNCATTGG TAAATGGGAA AGAGGTGAGC AACTTAAGAT 120

TGTCACAATT AATCACAAGT GTACAGGATT AGACTGGGTT TATATTTAAC TCTTGCTNCA 180
TAGGTGTACC ATTTAAAGAG TGTATTATAA TGCTAAGTTT AACTGCTTTA ATAAAGTTTA 240
TTTTTAAATA AA 252

5
SEQ ID NO:3062
SEQUENCE LENGTH:103
SEQUENCE TYPE:nucleic acid
10 TOPOLOGY:linear
CLONE:HUMGS03606

SEQUENCE DESCRIPTION:
GATCAACAAA ATAACCTGTA TCTCCTGCTT AANTCCTTTA TACTACCTGG NGAAAAGTAT 60
TTCCCATATT TCCAATAAAT GTCAGACACT ATTGAGAAAG AAA 103

15
SEQ ID NO:3063
SEQUENCE LENGTH:103
SEQUENCE TYPE:nucleic acid
20 TOPOLOGY:linear
CLONE:HUMGS03607

SEQUENCE DESCRIPTION:
GATCCTGNAT NANGCCCGGG CCAGCGAGTG CAGGGACGTG GAGGGNTTCA AAACCGAGAT 60
GGCCATGCTG GTGACCCAGG CCAGGAAGAA CACCATCACC CNN 103

25
SEQ ID NO:3064
SEQUENCE LENGTH:159
SEQUENCE TYPE:nucleic acid
30 TOPOLOGY:linear
CLONE:HUMGS03608

SEQUENCE DESCRIPTION:
GATCCTCACA GTCAAGTGAC GAGGCTGGGG CTGAAAGCAG AAGCATGCAC AGGGAGGAGA 60
CCACTTTTAT TGCTTGTCTN GGTGGATGGG TCAGGAGGGT CTGAGGGCCT GTCCCAGACA 120
35 ATAAAGGTNC CCTCAGCGGA TGTGGGCCAT GTCACCAA 159

40
SEQ ID NO:3065
SEQUENCE LENGTH:102
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03609

SEQUENCE DESCRIPTION:
GATCCTATCG CCTTTNAGTA GAATATGAAA TATTCTTTNA GAAATCCAAT ATAAATAGGT 60
45 TATAATAGCC ATATNCTTNA TNACTTTATT GAGATATAAT TN 102

50
SEQ ID NO:3066
SEQUENCE LENGTH:186
SEQUENCE TYPE:nucleic acid
55 TOPOLOGY:linear

CLONE:HUMGS03610

SEQUENCE DESCRIPTION:

GATCTNAGCT CCCACCTCCC TTCCCACCTA CTGCACTTTC CCCCTTCCCG CCTTCCAAAA 60
CCTGCTTCTC TCAGTTTGTG AAGTCGGTGA TTATATTNT GGGGGCTTTC CTTNATTN 120
TAAAATGNAA AATTATNTA TANTCCGTAT TTAAAGTTGT AAAAAAATA NCCACAGAAC 180
AGNGAN 186

SEQ ID NO:3067

SEQUENCE LENGTH:100

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03611

SEQUENCE DESCRIPTION:

GATCTCAGAC AGTGTGCGGC GGCACATGAG CGGCTTCCG CAGTGTCTG TTTGAGCCA 60
CTGCAGTCTG GGCCCATCA TTAAACGGG TCGTTTAAA 100

SEQ ID NO:3068

SEQUENCE LENGTH:98

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03612

SEQUENCE DESCRIPTION:

GATCTCCAGT NAGACTCCAG GGTCTAGAC AGAGGCCAGT NTTGGCCACT CACCCACAC 60
CCCGCGGACC CCAATAAAGG CTGTCATAGC TCCAGAAA 98

SEQ ID NO:3069

SEQUENCE LENGTH:98

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03613

SEQUENCE DESCRIPTION:

GATCCTGAAG CTNACCGGG CTCCAAAGG CAAATGGAGC TGCCCTCNTC TGTATCAGGT 60
TTATTGGTTG TACATATAAA TNATACTTNC CTTTCAA 98

SEQ ID NO:3070

SEQUENCE LENGTH:107

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03614

SEQUENCE DESCRIPTION:

GATCCTGTTT AACAAAGATA CTTGAGACAT CCATTGTTT TAATGAAATC TGTATGGATA 60
TGGAAATNCT TGCCCTAATA AAAGCCTACA TATACCTTCT GGTTAAA 107

SEQ ID NO:3071

SEQUENCE LENGTH:97

EP 0 679 716 A1

SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03615

5 SEQUENCE DESCRIPTION:
 GATCTNTCCG TTCTCAGGCC AGACCCCTGG TGCTGCCGTT AATTTTTTTT TCTCTGTCTT 60
 TGCTGCAATN TTNAATAAAA ATGCCAAAGA ACACAAA 97

10 SEQ ID NO:3072
 SEQUENCE LENGTH:95
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03616

15 SEQUENCE DESCRIPTION:
 GATCCTAAAC AAATCATCTT TGTCAGTTAA GTATAGTTGC GCAAAAATTG TTAAATCCTT 60
 TGTCTTTATT AAAGAAAAAT TTGAGTAACA TTAAA 95

20 SEQ ID NO:3073
 SEQUENCE LENGTH:94
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03617

25 SEQUENCE DESCRIPTION:
 GATCTAAGTG ATGAGTCTAG GTGTGTTATT GTNCAGTTTT TNCAACTTTC CTGGAAAACG 60
 AACTTTTCAA AATAAAAAAT TGGAAAAATA GAAA 94

30 SEQ ID NO:3074
 SEQUENCE LENGTH:183
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03618

35 SEQUENCE DESCRIPTION:
 GATCACTTTG AGAAACAAAC TTTTATTAAA TGTAAGGCAC TTTTCTATGA ATTTTAAATA 60
 TAAAAATAAA TATTGTTCTG ATTATNACTG AAAAGATGTC AGCCATTTC A TGTCCTGGG 120
 AAACAATTTT TTGTTTTTGT TCTGTTTTCT TTTTGCTTCA ATAAACAAT AGCTGGCTCT 180
 AAA 183

40

45 SEQ ID NO:3075
 SEQUENCE LENGTH:92
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03619

50 SEQUENCE DESCRIPTION:
 GATCTGCCAT ATTTGNTNTT GGTTTTAATT TTCATATCCA GCCTAAAGGT GGTGTTTAT 60
 NATATAGTAA TAAATCATTG CTGTACAATA AA 92

55

SEQ ID NO:3076

SEQUENCE LENGTH:92

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03620

SEQUENCE DESCRIPTION:

GATCAGGCTG CCTCCTGGNT TGGNTGTCGG GGGAGCTGTC CGGCAGCCTG GCAGGGAGAT 60

GCAAGGCCTA AAGTAAAATT TTNTCAAGTA AA 92

SEQ ID NO:3077

SEQUENCE LENGTH:91

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03621

SEQUENCE DESCRIPTION:

GATCTAGCCC CTTCTCAGG CCGAGAGAAT TTCGAGCGTT ANCCGTCTCT TGGCCACCAG 60

CTAAATAAAC GGATTCTTCA TGTGTCTCAA A 91

SEQ ID NO:3078

SEQUENCE LENGTH:91

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03622

SEQUENCE DESCRIPTION:

GATCTGCTAT TGTATTCTTCT CCTCTTATT GGAAAAAGGC CTCAGTTTA ATTATTTTCT 60

TCCCAAAATA AATNACACAT TTGGTTACAA A 91

SEQ ID NO:3079

SEQUENCE LENGTH:239

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03623

SEQUENCE DESCRIPTION:

GATCCTGCAT CAGCATTGTA TATATGGNCT TAAGTGCCTG GCCTCCTTAT CCTTCAGAAT 60

ATTTATTNA CTTACAATCC TCAAGTTTAA ATTGAITTTA AATATTTTCC AATACAACAG 120

TTTAGGTTTA AGATGACCAA TGACAATGAC CACCTTTGCA GAAAGTAAAC TGATTGANTA 180

ANTAANTCTC CGTTNNNTTC ANTTNATTTT AGTGTAATGA NAANGTTGCT TAGTATTN 239

SEQ ID NO:3080

SEQUENCE LENGTH:196

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03624

SEQUENCE DESCRIPTION:

GATCCCTGCC CTGCACCAGC ACCCTGANAT GGAGCTGAGA CTTTATTAT TGGGGGTAGG 60

EP 0 679 716 A1

GGGATGGAGG AGGTCCTCC AACATGTTTG GACCCAGCTC CTTTGGGTTT CACTGACACC 120
CCTGCCCCCTG CCCCTGCCCA GAACCAAGTG CCATTCTCA CTCTGGAGCC TTAATAAACT 180
GCAATTTGTA TCCAAA 196

5

SEQ ID NO:3081
SEQUENCE LENGTH:90
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

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CLONE:HUMGS03625
SEQUENCE DESCRIPTION:
GATCTGTGTA CTGTTTACTT CCCACTTCCC AGAATCCCTT GTATCTCCTT TCTCGGGAAT 60
TGTATTTTCT AATAAATGAC ATTTGAGAAA 90

15

SEQ ID NO:3082
SEQUENCE LENGTH:90
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

20

CLONE:HUMGS03626
SEQUENCE DESCRIPTION:
GATCTCTGGA AGTGTAATTN TGAAAGAAAC TTNCCTGCAG CTTTAACAAA ATGAGAAACT 60
TNCCAAATAA AACTTGTTTT GAAGTTTAAA 90

25

SEQ ID NO:3083
SEQUENCE LENGTH:89
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

30

CLONE:HUMGS03627
SEQUENCE DESCRIPTION:
GATCCTCGGG AAGAACAAAG CTAAAGCTGC CTTTTGTCTG TTATTTTATT TTTTGAAAGT 60
TTAAATAAAG TTTACTAATT TTGACCAAA 89

35

SEQ ID NO:3084
SEQUENCE LENGTH:88
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

40

CLONE:HUMGS03628
SEQUENCE DESCRIPTION:
GATCAATCTT TGATGGTGAG GGTTTTAGAA AGGAAAAATA TAGTAAATG TGTAATTTGT 60
CTTAATAAAA TCTATCTNTA CATCTAAA 88

45

SEQ ID NO:3085
SEQUENCE LENGTH:94
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

50

CLONE:HUMGS03629

55

SEQUENCE DESCRIPTION:

GATCTAGATT GGGTGAGGGG GACGGGGATG TNAGGGAGGC AAGTGTGTN TGTACTGTG 60
TCAATAANCT GGTTTAAAGT TGTAAGTGN GAAA 94

5

SEQ ID NO:3086

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

10

TOPOLOGY:linear

CLONE:HUMGS03631

SEQUENCE DESCRIPTION:

GATCTGAATT TCACAAAAG TTCATGGAGA AATATATTAA ATAGTACAGT TTTATGTGCT 60
TAATTAAAGA CTGTAAACG TAAAGGAAA 89

15

SEQ ID NO:3087

SEQUENCE LENGTH:84

SEQUENCE TYPE:nucleic acid

20

TOPOLOGY:linear

CLONE:HUMGS03632

SEQUENCE DESCRIPTION:

GATCATACCA CGGCACTCCA GACTGGGGAC CAAAGTGAGA CTTGTTTCT AAAANTTAAA 60
ATATTTAGAA TGTTTCTAG CAAA 84

25

SEQ ID NO:3088

SEQUENCE LENGTH:82

SEQUENCE TYPE:nucleic acid

30

TOPOLOGY:linear

CLONE:HUMGS03633

SEQUENCE DESCRIPTION:

GATCCCAAGG ATGGAGAACA ACTTACCCAG TAGCTAGAAT GTTAATGGCA GAAGAGNAAA 60
CAATAAATCA TATTGACTCA AA 82

35

SEQ ID NO:3089

SEQUENCE LENGTH:81

SEQUENCE TYPE:nucleic acid

40

TOPOLOGY:linear

CLONE:HUMGS03634

SEQUENCE DESCRIPTION:

GATCTCCAGA TGTGCATTTC CCTCTCTTAT TTAAAGTTAT GTTAAGATTA CTAAAACAAT 60
AAAAGCTCCT AAAAAATCAA A 81

45

SEQ ID NO:3090

SEQUENCE LENGTH:79

SEQUENCE TYPE:nucleic acid

50

TOPOLOGY:linear

CLONE:HUMGS03635

55

SEQUENCE DESCRIPTION:

GATCCAACCG TGCCTGAAGC TAGAATATCC CCTGGACTTT TCAGTTATGT GAACCAATAA 60
ATACCCTTTT TTGCTTAAA 79

5

SEQ ID NO:3091

SEQUENCE LENGTH:78

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

10

CLONE:HUMGS03636

SEQUENCE DESCRIPTION:

GATCTGNGAN ATATTATGGT AATTGTGTG GGGCGCCATG AACCGCACCC ATATAACACG 60
GTAAACTTAA TCAGCAAA 78

15

SEQ ID NO:3092

SEQUENCE LENGTH:77

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

20

CLONE:HUMGS03637

SEQUENCE DESCRIPTION:

GATCATGCTG AAAACCACTC AAACGATTAT ATTTTTTACA TTATAAGAAG TAAAATATAT 60
TATTCTGAAT AATGAAA 77

25

SEQ ID NO:3093

SEQUENCE LENGTH:75

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

30

CLONE:HUMGS03638

SEQUENCE DESCRIPTION:

GATCTGTGCA TTGCTCCTTC TGATTTGTGC TAAGTTGTTA AATAAGAGGG ACCCTGAGAA 60
AGGCCTTACT CTAAA 75

35

SEQ ID NO:3094

SEQUENCE LENGTH:75

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40

CLONE:HUMGS03639

SEQUENCE DESCRIPTION:

GATCACACAG CTAACGAGGC TGCCTCCAGC ATTTCTGAT TTCCTCTGTG GTAATAAAAG 60
CTTTCTGTGC TTAAA 75

45

SEQ ID NO:3095

SEQUENCE LENGTH:78

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50

CLONE:HUMGS03640

55

SEQUENCE DESCRIPTION:

GATCAGAACT TACAAACCAA ACTTTTATTC TGAGAACTG GCTGTACAAT ATNTGAAAAG 60
 AAAGTGACAT GNAGGAAA 78

5

SEQ ID NO:3096

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

10

CLONE:HUMGS03641

SEQUENCE DESCRIPTION:

GATCTTTTNN AAGTNTTCTG AAAGGAAGTA GACAGTATTA CACCCTGAAT AAATAAGGTG 60
 TTGTTTTCCA CAAA 74

15

SEQ ID NO:3097

SEQUENCE LENGTH:267

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS03642

SEQUENCE DESCRIPTION:

GATCTACTTC CCATGCAGAA GAGAAGTCAC ATCTCCAGG GAATCGCAAT GTTGTGGCGT 60
 CTGACTTGTA TGTACATTT GTGTAAAATG GTATATNCTT TAAAATAGTG TTGATAACTG 120
 GAATATTGTA TGTATGCTTG GAGATGCTTT GTGTGAACCT AAGACTGTCA CTCAACAGAT 180
 GTTGGATTGG GGNAAATCCA AAGCACAACT TCAAANTAAN NTACATTTTT AGGTTTCGAT 240
 GCTGCAAANC ANANAANANN ACANNAN 267

25

SEQ ID NO:3098

SEQUENCE LENGTH:73

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03643

SEQUENCE DESCRIPTION:

GATCATGGTG ATGTACGGGG TGAATTCTCT TGCCGTGTTG CAAATGTGTA AAATAAAGAT 60
 TATCTGGCAG AAA 73

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35

SEQ ID NO:3099

SEQUENCE LENGTH:71

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03644

SEQUENCE DESCRIPTION:

GATCCNAGNT CTANCGTCAT ATAATCATT AATATAATTA AAGTTTAATT GCTGAAATAC 60
 TTATAATGAA A 71

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SEQ ID NO:3100

SEQUENCE LENGTH:69

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SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03645
5 SEQUENCE DESCRIPTION:
GATCATGCAA TTCCTTCAAT TATGATGGAA AGACTTGAAC TTTCTGAAAT AAAACAAAA 60
TACAGCAAA 69

10 SEQ ID NO:3101
SEQUENCE LENGTH:67
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03646
15 SEQUENCE DESCRIPTION:
GATCCATTTA TTGCAATTCA TGCTGAATCT AAATTATAAA ATTTAAAT AAATGCATAT 60
CCTCAA 67

20 SEQ ID NO:3102
SEQUENCE LENGTH:65
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03647
25 SEQUENCE DESCRIPTION:
GATCCGAAAC CTGTTAAACA ATAAGATGTG TTCTCGGAAA ATNAACAAG AGGTATCACA 60
AGAAA 65

30 SEQ ID NO:3103
SEQUENCE LENGTH:64
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03648
35 SEQUENCE DESCRIPTION:
GATCATCTCT TCTCCATAAG ATAGTGTGAT AAACACAGTC ATGAATAAAG TTATTTCCA 60
CAAA 64

40 SEQ ID NO:3104
SEQUENCE LENGTH:64
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03649
45 SEQUENCE DESCRIPTION:
GATCGCTCCA ATAAACATAT ATTGTGAAAA TGCATCCACA ATAAATGGAA TTCCTCCTG 60
CAAA 64

50 SEQ ID NO:3105
SEQUENCE LENGTH:63

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03650

SEQUENCE DESCRIPTION:

GATCTACCTG TCTTGTGGC ACATGTTTCT AAAGTTTCCA ATAAATCACC TTCTACTGAC 60
AAA 63

SEQ ID NO:3106

SEQUENCE LENGTH:68

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03651

SEQUENCE DESCRIPTION:

GATCAGCATC AGGCTGTTAT CAAGTCTGTT GGTGCTAAAA AGTAAANAT GAAATGTTCA 60
AAGAGAAA 68

SEQ ID NO:3107

SEQUENCE LENGTH:58

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03652

SEQUENCE DESCRIPTION:

GATCTGTCTG GCTCCNTTGT TTCTTATTAA ATAAATTTCT GTCTTCTATT GTTCAAA 58

SEQ ID NO:3108

SEQUENCE LENGTH:58

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03653

SEQUENCE DESCRIPTION:

GATCAGCCTT NNTATAATGT TTTTAAATC ATTTCTAAAT AAAACAGAAA TACAGAAA 58

SEQ ID NO:3109

SEQUENCE LENGTH:55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03654

SEQUENCE DESCRIPTION:

GATCTAGACT TATATGAATA AATNAAATTA CATGCCAAGG GCCCTAAAAA GCAA 55

SEQ ID NO:3110

SEQUENCE LENGTH:53

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03655

SEQUENCE DESCRIPTION:

GATCAGGGCC GAGCAGAACC GCACTCTTCC CAAATAAAGC TTCCTCCTTG AAA 53

5 SEQ ID NO:3111
SEQUENCE LENGTH:55
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

CLONE:HUMGS03659
10 SEQUENCE DESCRIPTION:
GATCATATTT TTNATACAG GTATTTCAAT TAAAATGTTT TTGTACATAG TGAAA 55

SEQ ID NO:3112
15 SEQUENCE LENGTH:76
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03661
SEQUENCE DESCRIPTION:
20 GATCCAATCA NTTAAATAAA CCTGTATGTA TATGCATATG TNTACATGCA TATCCCCTCC 60
TGCTAAAACAT CATAAA 76

SEQ ID NO:3113
25 SEQUENCE LENGTH:451
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03679
SEQUENCE DESCRIPTION:
30 GATCCCTCAG TTTCTTCTTG ATTTCAAGCAT GTNTCGGGTT CCTAATTTAT GGTATGAGTT 60
AGCAAAATTTA ACCATTGTGT TTGTGCCCTA CCCAGGGGAC TCCCCAGTTT CTGACTTGAA 120
GTAGACTGAG AAGAATCCAC GAGGTGCTAT CTGGCCAGAT TTAAGTAGAT TCTATTTCCT 180
TGGTTCTCCC TCTCCCTGAG GACCTCTTAT TTNATTGTCC CCTCTTCTAG GTTAATTCTC 240
35 CTTTGATTG ACTTTGTTGA GAAGGAGGTT GGACAGTAGA TTAGCAAAGT TCCAAGTGCA 300
AAATTACAGT GTGTTAGAGT GTGGGGGGAA AATTAGTCTT ATTTTCCCT ACATGGGATA 360
CAACACTGTG AATTCAATCT TCAACCTGAA GGGCCCTGCA GTTCCTCCTA AAACATNGTT 420
GTTTGNTTTT CTTTAACCAA GGTTTAAGCT N 451

40 SEQ ID NO:3114
SEQUENCE LENGTH:445
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS03680
SEQUENCE DESCRIPTION:
GATCTAAGGA TGACTTGGAC ACACCTCNTG GCACTGAAGA GTCTGAACAN TGGCCTGTNA 60
TTGGTCCATT CCAGGACCTT CATTTCGATA AGGTATCAAA CCACANCAGC CTCTGATTGG 120
CCATGGGCAG ACCTGCACTN TGGCCAATNA TTGGTTCATT CCAGGACATT CATTTCGATA 180
50 AGGAGTCAAA CCACANCAGT CTTGGATTGG CTGTGAGCCA ATTCACCTCA GTCTCTAATT 240

55

GGC>NNNAGT CAGTCTTTCA TTTACATAGG GTGTAACCAT CAAGAAACCT CTACAGGGTA 300
 CTTAAGCCCC AGAAGATTTT NCTACCAGGG CTCTTGAGCN ACTTGCTCTA GCCCACTCCC 360
 ACCCTGTGGA ATGTNCTTTC ANCTTTTGNT TGGTTTCAAG TNCCTTGGTG CTTCCAATAA 420
 NTNCCACTTC CTTACCACC CNAAA 445

SEQ ID NO:3115

SEQUENCE LENGTH:439

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03681

SEQUENCE DESCRIPTION:

GATCGGCGCC ACTGCTGTCC TGCTGGCTTC NNCTGCGCAG CANGGGGTAC CAAGTGTTN 60
 CCCAGGGAGG CCCCGCGCTG GGACGCCCCCT TTAAGGGACC CAGCCTTGAN ACAGCTGCTG 120
 TAAGGGACAG TACTGAAGAC TCTGCAGCCC TCGGNACCCC ACTCGGAGGG TGCCCTCTGC 180
 TCAGGCCTCC CTAGCACCTC CCCCTAACCA AATTNTCCCT GGACCCCAT TCTNAGCTCCC 240
 CATCACCATG GGAGGTGGGG CCTCAATCTA AGGCCCTCCC TGTAAGAAGG GGGTTGTGGC 300
 AAAAGCCACA TTACAAGCTG CCATCCCCTC CCCGTTTNG TGGACCCTGT GGCCAGGTGC 360
 TTTTCCTAT CCACAGGGGT GTTTTGTGTG TGTGCGCGTG GTGCGGTTN AATAAANGTT 420
 TGTACAACTT NTGTTTAAA 439

SEQ ID NO:3116

SEQUENCE LENGTH:431

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03682

SEQUENCE DESCRIPTION:

GATCTTGAAG TGCTTTTAT ACAGCTCTCT AATAATTACA AATATCCGAA AGTCATTCT 60
 TGGAACACAA GTGGAGTATG NNAAATTNNN TATGAATTT TCAGATTATC TAAGCTTGCA 120
 GGTTTTATAA TTAGAAGATA ATGTGAGANT TAATGGGGTT TATATTACA TTATCTCTCA 180
 ACTATGTAGC NCATATTACT CACCCTATGA GTGAATCTGG AATTGCTTT CATGTGAAAT 240
 CATTGTGGTC TATGAGTTA CAATACTGCA AACTGTGTTA TTTTATCTAA TCCATTGCTT 300
 AATGAGTGTG TTTTCCATG ATTGAATATA CCGTGGTTCA TATGTTAGCA TGGCAGCATT 360
 TTCAGNTAGC TTTTGGTTT GTTGGGAAGT TGGGGTTTG GGGGGAGGGG GGAGTNTNG 420
 TACGTTGCCT N 431

SEQ ID NO:3117

SEQUENCE LENGTH:427

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03683

SEQUENCE DESCRIPTION:

GATCAAAGTA TTATATGCTG TGTGCTTTTA AGGTGTTTGT AAGTACTGAA AAAGGCAAAA 60
 ATNCTTTCTA CATTGACATT CATTCCATT TNACTGGGCA CCTATGAATG TATGCTGTGT 120
 GCTAGAAAATA GACTAAAACA TATTCCTATA GCATGTNAGT GTGTTTGCAT GTTTGCTGAA 180
 AATCCTTTGT GTATAANCCA GTTTGTAAGG TTCTCTGGGT TAGGTAGGGA CTCTGCAGTT 240

EP 0 679 716 A1

TCTNCCTGTC NAAATCTCTC CTACCAAGAT GGTGTTCCAC TGTCCAGCCC AGCATGAGTA 300
GCAGGTAGNG CACAGCTTTA CTGGCTGGTT TGTATGCTTT GGTTTTAGGT GCAATTGTTG 360
TGGGTNGATT TACTTTNTCC AGAAAACCAT NGTATTGNNN ATGTCCTNGG ACCGGTGGAA 420
AATAGGN 427

SEQ ID NO:3118
SEQUENCE LENGTH:423
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03684

SEQUENCE DESCRIPTION:
GATCAAAAAT ATTAGAAAAA ATAAAANTAA TACAAATAAA AATACAGTAT AACAGTTATT 60
TAAATAGCAT TTACATTGCA TTAGGTATTA GTCTAGGGAT AAAGTATACA GCGCGATGTN 120
CGTTGGTTAT ATACAAATAT GTCATTTTAT GNAANNGACT TGAGTATACT TGGNTTTTNG 180
GTATCTNTGG GTTGGGGGGA CGGTCCAGGA ACCAATACCC CATGGATACC AAGGGACAAC 240
TGACTTATT TNCNTTATT GTCATTGCAA GCTTCTTATG GAACTTTAT AGGGAATGAN 300
AATATACATG TTAAGGANGA TTAACATTA GATAGTAGAT GGTTTGTTGC ATGCTAGAAC 360
TGTTAGTATT GTTGATTCAA TTACTTTGGT TTCATGAAAA ANTAAACGGT AANTATCTTT 420
AAA 423

SEQ ID NO:3119
SEQUENCE LENGTH:421
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03685

SEQUENCE DESCRIPTION:
GATCGAGACC ATCCTGGCCA ACATGGTGAA AACTCATCTT TACTAAAATA CAAAAAATTA 60
GCCACGCNTG GTGGCGCAGC TTGTGGTCCC AGCTACTCGG GAGGCTGAGG CAGTGGAGTC 120
ACTTGAACCC GGGAGGCAGA GGTGTCAGTG AGCCGAGATT GCACCACTGT ACTCCAGCCT 180
GGCGACAGAG CAAGATTCTN TNTGCCCCC CACCAAAAAA AAAGANTGAA ACACTGATAT 240
TTGCTACAAC ATGGNTATAC CTCCAAAGCA TCCTGTTAAG TGA AACAGG GAGACACAGT 300
CACGTACTAT ATGATTGCNC TTACGTGAAA TATCCACANN GACGNNTCCA TGGNGACCAG 360
GCAGATTGCC GNTTGCCAGA GGCCAAGGGT TAGGGA AAAA TTGGTGAGGG ACCCTGCGTG 420
N 421

SEQ ID NO:3120
SEQUENCE LENGTH:410
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03686

SEQUENCE DESCRIPTION:
GATCTATGAC TTCTCAAAGC CGGGTCATGA ATGTCCATAA AATGCTAGGC ATTCCTATTT 60
CCAATATTTT NATGGTTGGA AATAATGCTT CANATTGGA ACTGGACCCC ATGAAGGATA 120
TTCTCATCCT CTCTGCACTG AGGCAGATGC TGCGGGCTGC AGATGATTTT TTAGAAGATT 180
TGCCCTCTNGA GGAAACTGGT GCAATTGAGA GAGCGTTACA GCCCTGCATT TGAGATAAGT 240

TGCCTTGATT CTGACATTG GNCCAGCCTG TACTGGTGTG CCGCAATGAG AGTCAATCTC 300
 TATTGACAGC CTGNTTCAGA TTTNNCTTTN GTNCGTTTNN CNTTCTGTCC TTGGACCAGT 360
 CATATCTCAN GTTCCAAAGG CCANAACCTT GAGGAGCGGT NNGGCTAAGN 410

SEQ ID NO:3121

SEQUENCE LENGTH:402

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03688

SEQUENCE DESCRIPTION:

GATCTGAGGA CCCTGTACTG GTTACTCCTG TACACGTTC CAATTTTCNT GTAAATNTAT 60
 TAATATACTG AGCAGTCCAG GAGCAGCCAT TAGGCAAACA CCACTCCTTG CTCCTTCAT 120
 GTGACCTATC ACTGAGCTCA CCAGCTGAGG TCAATNACAT TCTCCCAAC CTGGAGAACA 180
 GAATTTGGGT CTGCTCAGAG GCATGATGTG AAACATGTCT GGGATAAAAG CTTGTCTTA 240
 TTGACAGCAA ACCTTTTGT GTTAAGGGGT AGGGGAAGAG CANGTGAAGG ATGCAGATTA 300
 ATTTCTATTT AGGANTATAC TTTNTATAT NGTTTGAAT TTTGGNCTTG TAAAAATATT 360
 CATCCATNTT TTNACCAANA NAATTCCTT GTGGACNGGT TN 402

SEQ ID NO:3122

SEQUENCE LENGTH:409

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03689

SEQUENCE DESCRIPTION:

GATCAGTTTG ATTCTGTAAT GAGCACAGCA CCTAATATTT TGAGGAGCTC TGTTTTGAGG 60
 ACCAATGCTT AAGGTGGACT TTGTTGTAACA ACAATATCCC AATAGATTTG TTGACTTGAG 120
 GTCTGGTTTG GTTTTGTGTT TGTGTTGTTT TGTGTTGTTT TGTGTTGTTT TGTGTTGTTT 180
 ATTCTAATGT TGAAAACTG CACAAATTTT TATGGGACAA AGCCTAGAAA AGAGAAATGT 240
 AGTTTGAATC ATAATCTAAA TCATCGTATG ATAGANGAGG GAAAGTTTGT GTGCCATAAT 300
 TTCTCCTTTC ACTGGTGTG GGNCTTAAAT CAAGTTGAAA TGTATTTCTG TACCACAATT 360
 TTANGGCTTT CAATAAAAAG TTTTAAATNG TCTAGGTGAC CATTCCAAA 409

SEQ ID NO:3123

SEQUENCE LENGTH:400

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03690

SEQUENCE DESCRIPTION:

GATCAACATC CACAGCGAGA CCTCCGTGCC CGACCATGTC GTCTGGTCCC TGTTC AACAC 60
 CCTCTTCTTG AACTGGTGCT GTCTGGGCTT CATAGCATTC GCCTACTCCG TGAAGTCTAG 120
 GGACAGGAAG ATGGTTGGCG ACGTGACCGG GGCCAGGCC TATGCCTCCA CCGCCAAGTG 180
 CCTGAACATC TGGGCCCTGA TTCTGGGCAT CCTCATGACC ATTGGATTCA TCCTGTTACT 240
 GGTATTCGGC TCTGTGACAG TCTACCATAT TATGTTACAG ATAATACAGG AAAAACGGGG 300
 TTACTAGTAG CNGNCCATAG CCTGCAACCT TTTGNACTTC ACTTGTGCAA TGCTTGGCCC 360
 TGNACGNTGG GGCTGTTGCC CTTGCCCCNT TTGGTCCTGN 400

SEQ ID NO:3124

SEQUENCE LENGTH:400

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03691

SEQUENCE DESCRIPTION:

GATCCTTCCT ACTTTGCTC TNTCCACCCA TGACCTTTT NACTGTGGCC ATCAGGACTT 60
 TCCCTGACAG CTGTGTACTC TTAGGCTAAG AGATGTGACT ACAGCCTGCC CCTGACTGTG 120
 TTGTCCAGG GCTGATGNTG TACAGGTACA GGCTGGAGAT TTNACATAG GTTAGATTCT 180
 CATTACGGG GNNGGTTAGC TTTAAGCACC CTAGAGGACT AGGGTAATCT GACTTCTCAC 240
 TTCCTAAGTT CCCTTCTATA TCCTCAAGGT AGAAATGTCT ATGTTTTCTA CTCCAATTCA 300
 TAAATCTATT CATAAGTCTT TTGGTACAAG TTTACCATGN TAAAAAGGAA ATGTGATTTT 360
 GGCTTCCCC NTCTTTTGCA CTTTTTGAA ATANAGGGTN 400

SEQ ID NO:3125

SEQUENCE LENGTH:397

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03693

SEQUENCE DESCRIPTION:

GATCCTNAAT TTNAAAAATTT NACACCATCA TAAATNAACA AAGGTAGGAA GGAGTTTGGC 60
 TTCAATAGCT TACAGTAAAA GGAGTAAAGG AGTTCAGCCT CAAAACGATA TTGTGACCT 120
 GTNATGTTAT GAAAAATAAT CCAGTGTTTA TACTTAACGG ATGCCATCCC TTATNATTTA 180
 CTATTTTCTT AGTCTAACTA AACAATCTTT ATTAAAAATA GCAATGATAT TTGACATGGG 240
 CCTAAGAAAT ATATAGTTAG CTAACAATAT TGTCAGTTAG AGGGATTCTT TTTCTAAATT 300
 AAGTACAGAT TTCTTCACCA AACTCCAGGN TAACAGAAAN GGGGCCATAA AATTTGGNCC 360
 ATAGTTTCTG GGTAAATAA NTGGTAATTT TAAANTN 397

SEQ ID NO:3126

SEQUENCE LENGTH:392

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03694

SEQUENCE DESCRIPTION:

GATCAAGTAA CATGTTGCAT GTGGCTTACT CTGGATATAT CTAAGCCCNT CTGCACATCT 60
 AAACCTAGAT GGAGTTGGTC AAATNAGGGA ACATCTGGNT TATGCCTTTT TNAAAGTAGT 120
 TTTNTTTAGG AACTGTCAGC ATGTNGTNGT TGAAGTGTGG AGTTGTAAC NTGCGTGGAC 180
 TATGGACAGT CAACAATATG TACTTAAAAG TTGCACTATT GCAAAACGGG TGTATTATCC 240
 AGGTACTCGT ACATATTTT TTNGTACTGC TGGTCCTGTA CCAGAAACAT TTNCTTTNAT 300
 NGTNACTNGC TTTTNAACCT TTGTTAGCC ACTTAAATC TGCTTATGGC ACAATTNGCC 360
 TCAAAANTCCC ATTCCANGT NGGTAATATT GN 392

SEQ ID NO:3127

SEQUENCE LENGTH:391

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03695

SEQUENCE DESCRIPTION:

GATCTAAGGA TGA CT TGGAC A CACTCCCTG GCACTGAAGA GTCTGAACAC TGGCCTGTNA 60
 TTGGTCCATT CCAGGACCTT CATTGCATA AGGTATCAAA CCACATCAGC CTCTGATTGG 120
 CCATGGGCCA GACCTGCACT CTGGCCAATN ATTGGTTCAT TCCAGGACAT TCATTTCAT 180
 AAGNGTCAA ACCACAGCAG TCTTGGATTG GCTGTGAGCC AATTCACCTC AGTNTCTAAT 240
 TGGCTGTGAG TCAGTCTTTC ATTTACATAG GGTGTAACCA TCAGGAANCE TCTACAGGGT 300
 ACTTAAGCCC CAGGATGATT TTGGCTTACC CGGGNGTTTC TTGNGGCCNC TTTGGTNTTG 360
 GCCNAGTTNC NCACCTTTGT GGAATTGGT N 391

SEQ ID NO:3128

SEQUENCE LENGTH:389

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03696

SEQUENCE DESCRIPTION:

GATCTCGGCT CACTGCAACC TCCACCTCCC GGGTTCAAGC GATTCTCCTN CCTCAGCCTC 60
 CTGAGTATCT GGGATTACAG GCGTGACCA CCATGCCTGG CTAAGTTTG TGT TTTTTT 120
 AGTAGAGATG GGT TTTACC ATATTGGTCA GGCTGGTCTC GAACTCCTGA CCTTGTGATA 180
 CACCTGGCCT CAGCCTCCCA AAGGNNNGT GCCACCGCGC CTGGCCCAT TTTCTTTT 240
 TTGACCCATA CTTAATGTTG CAGAACTAT TCTGTGATA ACATTATCTC TCATGTACAG 300
 TAATTATATG TAAATTAATT GAAGCAAATN TGGGAACTT TACAATAGAA ATAAAGNTAG 360
 GCAGCCAGCG TGTGTTCCA NTTNTNAAA 389

SEQ ID NO:3129

SEQUENCE LENGTH:380

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03697

SEQUENCE DESCRIPTION:

GATCTCGGCT CACTGCAACC TCCACCTCCC GGGTTCAAGC ATTTCTCCTG TCTCGGCCTC 60
 CCGAGTAGCT GGGATTACAG GCGTGAGCAC CATGCCCAGC CAGAAGTACT ATNATTTCTT 120
 ATA ACTACAT ATGAATCTAA AATTATCACA AAAGGAACT TCTTTAAGA AAAAGAAAAG 180
 AATCAGAACA TAAATATACA GCATGGCAAA ACTACATCTA AAACAAGTAT TATAGGTCTC 240
 ATGGTGGAAA ANTTGGACCC ACAAGAAAAG TTGTTAATTA TCTCTGATAT TCTGAACCAT 300
 TGNTATCTGC AAAATGATTA CTAGGTATGT GCAATGANGG CTATTGATGT TACCCTGTAT 360
 ATCTGCACAC TGTGTTCCAN 380

SEQ ID NO:3130

SEQUENCE LENGTH:352

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03698

SEQUENCE DESCRIPTION:

GATCTGCTAG TGCTGTAATA TTGTAAATAC TGGACTCAGG AACTTTTGTT AGGAAAAAAT 60
 TGAAGAAGT TAAGTCTCGA ATGTAATTGG AATCTTCACC TCAGAGTGGA GTNNNNNCTG 120
 CTATAGCCTA AGCGGCTGTT TACTGCTTTT CATTAGCAGT TGCTCACATG TCTTTGGGTG 180
 GGGGNGNGAN GANGAATTGG CCATCTTAAA AAGCGGGTAA AAAACCTGGG TTAGGGTGTG 240
 TGTTCACCTT CAAAATGTTC TATTTAACAA CTGGGTCATG TGCATCTGGT GTAGGAAGTT 300
 TTTTCTACCA TAAGTGACAC CAATAAATGT TTGTTATTTA CACTAGTCTA AA 352

SEQ ID NO:3131

SEQUENCE LENGTH:375

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03699

SEQUENCE DESCRIPTION:

GATCGTGGGT TGCCGAGAGG ACCTGAGCGC TCGGGCTCTG CTGAATGGAN CCGGGTCCCT 60
 CAGGCCGTGG ACGCCCTCGG AAGGGGGGTG ACTGTGGCTT GTNTCTGGAC AGGAATGTGT 120
 CATTTCACAC ATCTTCTAGA GGGCTGCCAG CTGGGAAGAC AGTTATNAGG GCAAGCTGTG 180
 CTCTGAGTTT CGGGTCTGTC TCCTACAAAG AACGTGCGGT GCTGCGGGCN AGGGCCCCGG 240
 CACGGACAAG GGCCACTGCA GAGTGTGTTT CTNCTCGTNA GCTGCCCTGG GCANGGAATG 300
 GGCTGNTNA TGCAGTTGGA TGCACATCTN ATTCTGTCAT GAATGTCCAG TAAAAAATCT 360
 GAAATTGGTT GCAAA 375

SEQ ID NO:3132

SEQUENCE LENGTH:369

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03701

SEQUENCE DESCRIPTION:

GATCCAACCC AAGGGCAAGG GCATCCTGGG AAATACCATC AAGTGGAAT TCACCAAGTN 60
 CCTCATNGAC AAGAACGGCT GCGTGGTGAA GCGCTACGGA CCCATGGAGG AGCCCCTGGT 120
 GATAGAGAAG NACCTGCCCC ACTATTCTA GCTCCACAAG TGTGTGGNCC CGCCCGAGCC 180
 CCTGCCCACG CCCTTGAGC CTTCACCGG CACTCATNAC GGCCTGCCTG CAAACCTGCT 240
 GGTGGGBCAG ACCCGAAAAT CCAGCGTGCA CCCC GCCGGA GGAAGGTCCC ATGGCCTGCT 300
 GGGNTTGGCT CGGCGCNCCC ACCCCTGGCT ACCTTGTTGG AATAAACAGA CAAATTAGCC 360
 TGCTGGAAA 369

SEQ ID NO:3133

SEQUENCE LENGTH:367

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03702

SEQUENCE DESCRIPTION:

GATCTTGGGA AAATTGCGGA GTGTACATTT ACAAAGATGC GTTCAAATAG TGCTCTAAGA 60
 GTTTTGTTC GTGGCTCACT TCGGCTAAAA TGCAGAAATG NATGCTGTCA GCGTTGGTAT 120
 TTCACATTCA ATGGAGCTGA ATGTTACGGA CCTCTTCCCA TTGAAGCTAT AATTTATTTG 180

GACCAAGGAA GCCCTGAAAT GAATTCAACA ATTAATATTC ATCGCACTTC TTCTGTGGAA 240
 GGACTTTGTG AAGGAATTGG TGCTGGATTA GTGGATGTTG CTATCTGGGT TGGTACTTGT 300
 TCAGATTACC CAAAAGGAGA TGCTTCTACT GGATGGAATT CAGTTTCTCG CATCATTATT 360
 TGAAGAN 367

SEQ ID NO:3134
 SEQUENCE LENGTH:366
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03703

SEQUENCE DESCRIPTION:
 GATCAAGAAA TGCATTGACA TTCTAATTGA GAAAGAATAT TTGGAGCGAG TGGATGGTGA 60
 AAAGGACACC TACAGTTACT TGGCTTAACC CTTCTGGAAG GGTCTGACTG TGTGACCCGC 120
 AGCAAATAGT TCATGTTGGA AAGAATGAAA ACAACTCAAG TTCATAGCAG CCAGCCTGCC 180
 GCCATTGGAC CTCCTTTTA AAAACTGAGA CCAAGACTCC CATCAGCTGG TCTCGGGTTT 240
 ACATCGGAAC TGCTCAGGAT TGATACATTT NAAGTCTGTA AATACGGACA CCAACGCCAT 300
 TTACCCTAAT TTNANGAACA GCGGGGNGCTG TCCNTCCGGT GCCGAGGGGC TTGCATTGCT 360
 TACCGN 366

SEQ ID NO:3135
 SEQUENCE LENGTH:364
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03704

SEQUENCE DESCRIPTION:
 GATCCCTGAT TAAGCTGATG ACTAGACCTA CAATTAATTT TCCTGCAGTA TATGAAGTAT 60
 TGTACCAGAG TATTAAAAGA TATGTAATAT TTNATTGATA AATCTATCCT TTAAGGAA 120
 TACGTTTTAG GATGTCATCA TTTTGATGTG AATCATGTAA ATGTTGATAA TATGCTGTTT 180
 ATTATACATT TAGTGTTC AAGAGATTCAC TTAATTGCCT TTTTGCCAC GTATATTATG 240
 TAGTCTATTT GCAACTGTTT TTAATAAANT GNCATTAAG GACTAGTTTA TGTNGGGAAC 300
 CATTAGTGGN TGTTATTNGN CTCCTCCCT NTNTTTTGG GGTGTTAGCG CACCTGCTTT 360
 GCTN 364

SEQ ID NO:3136
 SEQUENCE LENGTH:363
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03705

SEQUENCE DESCRIPTION:
 GATCCTGACC AGCAAGCCCC CCCCCAGCCC CCCTTCCAAG TGAAGCGTG NCTTGAGTGT 60
 GTCTGCGTGT TTACACCCGT CCCTCTGCTG GCCGCCCCG TCGAGCGGC ACCCTGCCC 120
 TGCCCTCCAC AGAATTGGGT TCCAAGGGCT GTTCCAGACA ACTGCCAAG TCACTGAGGG 180
 CCCTGCCCCA CCGGNCCTGG CCCCAGGGTC TATTAACCTA AAATGTAGCT CCCTAGCGNT 240
 AACCTAGGAA CCGGCGTTGN CTGCTTGGGG GGTACGCCC TCATGNCCTT GTTCCAGGG 300
 CCGGGGGCCT TNAAGCGGT NGAACAATC NTTGGCTTT TTTCANANTG TTTAATNGGA 360

ATN

363

SEQ ID NO:3137

SEQUENCE LENGTH:359

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03707

SEQUENCE DESCRIPTION:

5 GATCTGGTGG TCAGCCCTAG GATAAAAAGC CAGGGCTGGA GAACAAGAAA GGGCCAGGAG 60
 ATGGAATTCC TTCAGGCCGG CACCCACACC CTAGGACATG TAAGCCCTCA TGTCGAAGGG 120
 AGCCTCATGC AGATAGTAGG AAATCAGGTC TGGAAATTA AAANTAAAAG GCATGAGACT 180
 AAGGCTATCT GCTTCCNTTA TGCCCTGACT GGAGAGGGGA GGGTGGAGAG GCANGGCCCA 240
 15 CAGTGGGCGAT CCCNGCTNGG TCTTNGGATG NCTGCNGTGN GGTGAATTCC CGGGAACTNG 300
 TTTTGGCACA ANGNTNNTTT TTGGCACTTT GTTTTTTTTG GTATTAAAG GTTTTGCTN 359

SEQ ID NO:3138

SEQUENCE LENGTH:358

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03708

SEQUENCE DESCRIPTION:

25 GATCAGGGGA TAGTGAAGTT TACCAACTGG GTGATGTCAG TCAAAAGACA ACATGGCACA 60
 GAATATCAGT ATTCCGGCCA GGCCTCAGAG ACGTGGCATA TCAATATGTG AAAAAGGGGT 120
 CTCGAATTTA TTTGGAAGGG AAAATAGACT ATGGTGAATA CATGGATAAA AATAATGTGA 180
 GGCACACAAG AACAACAATC ATAGCTGATA ATATTATATT TCTGAGTGAC CAGACGNAAG 240
 30 AGAAGGAGTA GAAAGGATGA TTCTTCTTTG GCCATCATTI GGTACAGTCT CATTTCCAAG 300
 TCATGTATAA TCTTTATGGC TTCCAGGGAC ANGGNTTTAA AATACTCTTT TACGTAAA 358

SEQ ID NO:3139

SEQUENCE LENGTH:356

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03709

SEQUENCE DESCRIPTION:

40 GATCTCAGTC TCTCTGTCTC TCTTCTCTC CTTTTCCTTT TGGTGTATCA AATATTTNAT 60
 TGACAAAGTA AGGGCCTTGA TTAGGACCAA ATTCTCGTGT GTTGCTATGG TCTTTATTTA 120
 GGACAACAAT TAACAATGCA GTGGCCCATC CTTGTCACTC TACACATATG ACTATACGGG 180
 ACATATGTAA TATATAAATA TATATATAAA NCATTCCCCT CTGTCCCCTT GGCTTCGGAT 240
 GGAGGCCTTT CTGTTGAGCT GAAATGCACC TGCAGCTGGG TGCTGCCAGC AGCTTGCAGG 300
 45 CCCCAGCCCT GTTCCANTCA ATGCAGTTGN CAATAANTGG NATGAGTATC GTCAAA 356

SEQ ID NO:3140

SEQUENCE LENGTH:354

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03710

SEQUENCE DESCRIPTION:

5 GATCTTCAGC ATGTGCGGCC TCATGCTTAA GCTGAAGTGG TGTGCTTGGG TCGCTGTCTA 60
 CTGCTCCTTC ATCAGCTTTG CCAACTCTCG GAGCTCGGAG GACACGAAGC AAATAATGAG 120
 TAGCTTCATG CTGTCCATCT CTGCCGTGGT GATGTCCTAT CTGCAGAATC CTCAGCCCAT 180
 GACGCCCCCA TGGTGATACC AGCCTAGAAG GGTACATTT TGGACCCTGT CTATCCACTA 240
 GGCCCTGGGCT TTGGCTGCTA AACCTGCTGC CTCAGCTGC CATCCTGGAC TTCCCTGAAT 300
 10 NAGGCCGTCT CGGTGCCCC AGCTGGGATA GAGGGAACCT GGGCCCTTTT NCTN 354

SEQ ID NO:3141

SEQUENCE LENGTH:352

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS03711

SEQUENCE DESCRIPTION:

20 GATCTTGATG AGGGCCAACCT TTCCCTCTTC CACAAGGGAT TAATCTTAGA ACTATAGCCA 60
 ATTTATTATA AGTACTATTT AGCTACTCTG TGCTCCACAC ATCACGGAGT AATATCTTCA 120
 AACTATGAGG TTTAGTAACA CTGACTGCT GAGGTTTATT TCCTCAGCTC TGATGCTTCC 180
 TGGGTGAAGA TGTAAGTNAT TAAATTAAC TAAATTTAA AGCTAACACT TCATTCCATC 240
 TAGACCAGGT AGCTCGTCAT TTGTACGTCT GATAGGTGCT TCAACATCTC AGAATTGGCT 300
 TTATTTTCA TGCATTGCAT ATTGTACTCN TTGTAATAT TGGGNATGTA AN 352

25 SEQ ID NO:3142

SEQUENCE LENGTH:349

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS03712

SEQUENCE DESCRIPTION:

35 GATCTGACCA CTGTTCTCCA GCAGGCCTCT GCTGCAGCTT TTNCTCTCAG TGTCTGGCC 60
 CTCTCCTCTC TTGAAAGTTC TCTGCTTACT TTGGTTTTC CTCTGCTTGT AAAACATTGA 120
 GTCCCTCCCT TGCCTTGGTT AATTGACTCA CACCAGCTGT GCGATGCCCC CTTTACAAT 180
 TAAAGGAAAA CTGTTTGTGTT CAGTGTCACT TTGTCAGCAA CACTGTGTCC CTTGCCCCCA 240
 CCGTTCTTCT CTGCTGCATT TGGACATGAG CCAAATTGA ACCCAATCAA ATATAACGTG 300
 TCTGACACTG ATTTGTNTT TACTCAANTA AANGTATAGA CTACAGAAA 349

40 SEQ ID NO:3143

SEQUENCE LENGTH:348

SEQUENCE TYPE:nucleic acid

45 TOPOLOGY:linear

CLONE:HUMGS03713

SEQUENCE DESCRIPTION:

50 GATCTGTTCC AGCTGCAGGT GAACACCCTA CGACGTTATA AACGACACTA ACAAGTTGCA 60
 GACCAGACCA GGCTTCAATA AGGCCAGTT AGCAGAACT GTGAGTCGAC ACTTCAGGAA 120
 CATACCTGTG AATGAAAAAG AGACCCTTGC CTACTTCATC TACATGGTGA AGAGTAACAA 180
 GAGTAGACTG GACCAGAAAT CGGAGGGNGG CAAGCAGCTT NAGTGAGGAT GAAGCACATC 240

55

TTAAAGGAAT GAAGTGTAAT TGCTTGATGC ACAGGTNGAT ATCTACTACA TTAAAGCCCA 300
TAAAGACTGT TTAAATATTA TTGTAAATAA AAAAGTTTGT ATGATTGN 348

5 SEQ ID NO:3144
SEQUENCE LENGTH:348
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS03714

SEQUENCE DESCRIPTION:

GATCCAGATG CAGAGGCCAG GATGTGGGCC CAGCCCTGTG CCAGGAGGCT NGCTGGAATA 60
AAGGGATGGG CAGGCTGGCA TGGGGGCAGC CGCTGCCCTT GCCTNNNTGT TGCTGTGTAT 120
TCCTGCCGGC CAGGGGCCAC TGCCAGGACC ACGCCTCCCT TTTNATATCC CGATTCTTAA 180
15 GTTCTGTAT TGTTGTTATC TGGTGGAGAA AAAAGAACCG CGTGGCTGTT TTTNAACTGC 240
CTGGAACCTA AGACCCTGAA TTCTTTTCCC CCCCAAGGGG AAAATCTATA TGGAAAACAT 300
TTATTTTAAA ATACAGGATG AAGTGAATTA AAAGATTTTA AATGCAAA 348

20 SEQ ID NO:3145
SEQUENCE LENGTH:379
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03715

SEQUENCE DESCRIPTION:

GATCACACCT GAGCTTATGC TAAAAGGTGG GATGACTCAG AGCTGGGGCT GGTCACCAGA 60
CAGACTGACC ATGTGATTAG AGGTTTGAGG CTTTGAGTCA GCCTGACCTA TGGGGCGGGG 120
GACTGGAGGC TGAGTTTAAAT CATCTGGCCA GTGCTTTAAT CAGTACATCA TGAAACCCTA 180
30 ATAAAACTC TGGACACTAA AGCTCAGCAT AGCTTCCTGG GTGGTGAAGC TGTGGCTATG 240
CCGGCAGGGC AGTGTGCCCT AATTCACGA AGAGGGGGCA TGGGAGCACT GTGCTCAAGA 300
CCCTTCCAGA CCTTCCCTG TGTCTTCCTT GGCTTGTGGA GCTGATTGT ATCCTTTATA 360
ATAAACCTAA TCATAAGGN 379

35 SEQ ID NO:3146
SEQUENCE LENGTH:371
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03716

SEQUENCE DESCRIPTION:

GATCTGACCT GTGACAAGTC TGTACTATCC ACTATGTAAT TGGCTCACAA GTCAATTGCA 60
AACAAACTGA ATGTACAAAT CTTAGTGCTG GTGCTGAAAT CTCTTCAGAA TAGTNATCAT 120
GATTTAAAG TTTGTTTTAA AATTGCAAG CATCAAGTGT CAATCAAAAC TGAAGATGAA 180
45 AACTAATGA ATGTTGAATT CTCATGCTTT TAGGTGTACT TCCTTTTTAG AATTTTCAGT 240
TTTCTGCTAT TTTTACCGTA ACTATTCGT TTAANTTGG TTTTATTAN GTTTCCTACA 300
TGCTAACTTC GTTTGTGCGN TTGANTAAAN TTGCCGGTAT ATATNTGGTG GCCTTGTGTTG 360
TGACACTTTG N 371

50 SEQ ID NO:3147

55

SEQUENCE LENGTH:346

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03717

SEQUENCE DESCRIPTION:

GATCACAGGC AAACCCATCA AGCTGACTCA GGTGGAACAC GAAGCTGGCA NNTAAGTGG 60
 ACATGGATGG GGCAGGAACC ACCCCAGCC CAGGGCTGCA GCCTNNCCCA CCTNACCTTC 120
 CCGCTGGACT ATNACCTTAA CCAGCCTTIN ATCTTCGTAC TGAGGGACAC AGACACAGGG 180
 GCCCTTCTTT TCATTGGCAA GATTCTGGAC CCCAGGGGCC CCTAATATCC CAGTTTAATA 240
 TTCCAATACC CTAGAAGAAA ACCCGAGGGA CAGCAGATTC CACAGGACAC GAAGGCTTGC 300
 CCCTGTAAGG TTTCAATGCA TACANTAAAA GAGCTTTATC CCTAAA 346

SEQ ID NO:3148

SEQUENCE LENGTH:344

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03718

SEQUENCE DESCRIPTION:

GATCTNCTGC CGAGTGAATG GGGAAAGTNT CCAGAGCGGC AACACCAAAT AGATGGTATT 60
 CAAGACAGAG GACCTGATAG CCTGGGTCTC CCAGTTTNTN ACCTTNACC CAGGGGATGT 120
 NATCCTAACT GGGACCCCCC CAGGTGTCGG TGTATTCAGG AAACCTCCTG TTTTNTCAA 180
 GAAGGGGGAT GAAGTCCAGT GTGAGATTGA NGAAGTAGGT GTNATCATCA ACAAGGTGGT 240
 GTGATGGCTC CTGCACAGGC CCTGCACATA GGTGAGGGC ATCTGCTCCC ACTNAGCCTA 300
 GCCCAGGGAA AGGCCANTG ACAGGNTGTG GACAGGTTGC CAGN 344

SEQ ID NO:3149

SEQUENCE LENGTH:341

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03719

SEQUENCE DESCRIPTION:

GATCTTTGAA GTCTATTAA ATATTCATTC CATTACATCT AGACTCACCN AGAACTACAT 60
 GTTATGATGT TAAGTTGAAG TTGAAACATG ATGTTTGCA TTAAATTTAA GATATGCAA 120
 TTTATGTAGA GAAAATAAAT GTTATATACC CTATAATCTT TCACCTAATT AGTATTTAAT 180
 TATATGGATT TGNNTTATAT TATAAAGAT GTTTTGATT TGTCTNNGA TATTGNCAA 240
 ATTGTTTGA TATNCTTATG TTCTCAAGTC TGTATCTGCC TCCCCTGCCT TATNTCTNAT 300
 GTTTGGCCAC AGTTAACCCT TTGTGCTTCT TTGTAATCAA N 341

SEQ ID NO:3150

SEQUENCE LENGTH:339

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03720

SEQUENCE DESCRIPTION:

GATCTNATCA GTCCTAAGCG GGTGATGGG CAACACGGTT AGCGGGGAGA GCACGGGGTA 60

GCGGAGAAG GGCCTCTGGA GCAGGTCTGG AGGGGCCATG GGCAGTCCT GGGTGTGGGG 120
 ACACAGTCGG GTTGACCCAG GGCTGTCTCC CTCCANAGCC TCCCTCCGA CAATAAGTCC 180
 CCCCCTCTTG NTCCACCCCT NAGATTGGGC ATGGGGTGCG GTGTGGGGGG CATGTNCTGC 240
 CTGTTGTNAT GGGTTTTTTT TCGGGGGGGG NTTGCTTTTT TNTGGGTCT TTGAGCTCCA 300
 AAAAATAAAC ACTTCCTTTN AGGGAGAGCA CACCTTAAA 339

SEQ ID NO:3151

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03721

SEQUENCE DESCRIPTION:

GATCCTCTCC CTGGGATAAG CACTCCCAGC CCCGTTTATC AGAAACACAG GCAAGGAAAT 60
 TGGAAGTCC ACCCAGCCCA GCATGATGGC TCAATTGGTT GGTTCGTTG TNAGTTGTCT 120
 CTGTTGTTG TTAAGNNTT TAATAAAGTA CGTTTGCAT AATTGCCTTT AAATGGTTTG 180
 TAATATTTGT AACGGTTTTA GCAGCCTATA ACTTTTCAGC TGGTGCTTTT ACTTAGGNA 240
 AAAACAATT TGTAATACA GNACATTTGT TAAAAGGCAT AACNTAGAA CATAGCTTCC 300
 TGTGTTGTGG ATTTGGTTTC CTNTATATTC AAAGTAN 337

SEQ ID NO:3152

SEQUENCE LENGTH:336

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03722

SEQUENCE DESCRIPTION:

GATCAGAGGC AGACAATGAC GAGTGAAGAT GGTGTAAAG CCCTCTTCAT TCCTGGAGGA 60
 GCCTGCATCT AATCTNTNAG GCCCTCTTTC TCTGTGGGTC TCATGAACAG CAGTGGGGAC 120
 CATTGAGNAC TTGAATGGCC TGTGTTGNTA TGGGCTTGCA AAGGACAAGC AGAGTTCACA 180
 GAGCTCAGGA TAGAAACATC AGAGCCTCCT CCACGGGCTT CAGTGNAACT CCGATGAACT 240
 GTACCTGAGG GAATTTTTTT NTAATCAAC CCCTTGTGTG GATGAATACA GGACCACAAA 300
 ANTTNGTNTA CGTTTGAAAA AAAANAANNT NTNNNN 336

SEQ ID NO:3153

SEQUENCE LENGTH:334

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03723

SEQUENCE DESCRIPTION:

GATCTGCATT CCGACTGCCT ATNAACGGGT GTGGGGGCCG GGGGCTGGAN TTGCTGAAGT 60
 NTTCAACTTG CACTCGGAGC TCCTTTNATA CCTCAAAGCT GGCTGTNAGG TGGCAGCTCA 120
 CACCCAGACT CACTGGCCAC ACCTCAGCAG GGGGGGAGTC GAGTGTCAGT NTCTTTCTGT 180
 GAAGGCTTTT TTTTCCCTTT GGCCTGGGAA TTTTCCCAT TTTAATGAAG GGGTTTAAA 240
 TTGTTTCATT TTGTGTGCTG TGCTTCAAAG CCTTAAGTGT CAAATCTTGC ATTATCTNGT 300
 TTGTACAGAA ATATACTGGC CTAGCAGNGG CAAA 334

SEQ ID NO:3154

SEQUENCE LENGTH:330

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03724

SEQUENCE DESCRIPTION:

GATCAAAATT TGTGTACTTG CAGGGCTTTC TTCTTTTTN TTCAAATTTA CAAGGGTTCA 60
 TTTTGAAAC TACATTTTAA ACTTTGGAAT CAAATTGTTT CTTATTGGG AGGATAATGT 120
 ATATACATTG GTATTATGTT AAATAATAAA ATTGTNCTAA TTGGTGCCA TTTCCTGAAT 180
 CACAACGTGA TTTTGNATC TCANGCTATT TTCATATGTN ATGTGTCAAT GTATCATCTC 240
 TCAGAAAGGT TTACANTCC AACATTATA TGTNCTCTGT GTAAGTGAAT TTNACTTATC 300
 TTTNTAAAC CAGNAACATT AATTGAGAAA 330

SEQ ID NO:3155

SEQUENCE LENGTH:330

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03725

SEQUENCE DESCRIPTION:

GATCTTCGCA AGCCAGCTTC TTCTGCATCT NAGGGGCTGC TGGCGCCCAN AGGAGGCAGA 60
 CAGATGTCTN NTAGCTGAGT TTCTAACCGC ATGATGAGAC TCAGACCTTC CGCTGCACTA 120
 GAAAATCTGC AACAGTGTCC CTGAGTCACT TCTCCTTAGT GGGCAGACTC GTGTTAGATT 180
 TGTGGAACCC AGCTCTCTGA TTTACTCCTT TTGGAAAACC CATGGAATTT CATGTATAAG 240
 GCTTTCATTT GTATTTNAAG GTTTTTCTGT TTGTTTGTAG TATATACATG GTGCTCAATA 300
 GCAACATCTT AGCAGATGAA GCAGTTTATN 330

SEQ ID NO:3156

SEQUENCE LENGTH:329

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03726

SEQUENCE DESCRIPTION:

GATCTACTGC AAATCCTGCT ACGGAAAGAA GTATGGGCCA AAAGGCTACG GTTATNGCCA 60
 GGGCGCTGNC ACGCTTAACA TGGACCGTGG CGAGAGGCTG GGCATCAAAC CAGAGAGTGT 120
 TCAGCCTNNA CAGGCCTACA ACAAATCCAA ACACTTCTAA ATTNCTCAG AAATATGGAG 180
 GTGCNGNGAA GTGTTCCAGG NGTGGGGATT CTGTATATNC TGCCGAGANG ATAATTGGAG 240
 CTGGAAAGCC CTGGCACAAA ANCTGTTTCC GATGTGCAAA GTGTGGGAAG AGTCTTGANT 300
 CAACANCTCT GACTGNAAAN AGAAGGTGN 329

SEQ ID NO:3157

SEQUENCE LENGTH:329

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03727

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

5 GATCGGGCGC ACGGNCCGCT TTGGCAAGAG GGGCCTGGCA GTGAACATNN TGGACAGCAA 60
GCACAGCATG ANCATCCTGA ACAGAATCCA GGAGCATTTT AATAAGAAGA TAGAAAAGATT 120
GGACACAGAT GATTGGACG AGATTGAGAA ANTAGCCAAC TGAGAAGCTC CACCAGCCAC 180
TGATGCCAGC CCTGGCACTG CCCCTGCACA GGAGACAAGT GCGTTCAGGG CACAGGCCCC 240
GACATCACCC CAAGGNCAAC GGCACAAGTA GAGAGANACT ACCTACCTCA NTTCANATTA 300
TGTTTGGCCT TGACAAAATT GTATGCAAN 329

10 SEQ ID NO:3158
SEQUENCE LENGTH:327
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03728

15 SEQUENCE DESCRIPTION:
GATCAAAATT ACTNGAACAA TTGTTAATT ATCCATTGTG CTTAGCTTTG TGACACAGCC 60
AAAAGTTACC TATTTAATCT TTTCAATAAA AATTGTTNTT TGAAATCCAG AAATNATTTA 120
AAAAGAGGTC AGGTTTTTAA CTATTTATTG AAGTATGTGG ATGTACAGTA TTTCAATAGA 180
TATGAATATG AATAAATGGT ATGCCTTAAG ATTCTTTGAA TATGTATTTA CTTTAAAGAC 240
20 TGGAAAAAGC TCTTCCTGTC TTTTAGTAAA NCATCCATAT TTCATAACCT TATGTAAAAAT 300
ATGTNGTNCC TGTTTCCAAT AGGTGAN 327

25 SEQ ID NO:3159
SEQUENCE LENGTH:324
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03729

30 SEQUENCE DESCRIPTION:
GATCTGAATT TGGACCATT CACTAAAGAG AACATGAGTT TGCTCAGCCC TTTCCTCACA 60
AGAGGGAGGG CCCCGGTTCC CCAGACTTCT CCACGCGCTG GCTCCATAAA GGCCAGCTTT 120
GGCCAGGCTG CCACAGGGGC CTNAGGAGCT CACTCTGGGC CTACCTGGTT TCAGTTAGAG 180
GGTCCTCCTG TTATTTTCC ATTTAAAAAG TATGTCCTCA GAAACTGTA NTGGAAGGAT 240
35 GGGTGGCAGG AACTTGATA GTTCAGCTTC CAACACTTTG GAACAGATTA AAAAGGGAAT 300
CTTTTAAATA AAAACGTATA NAAA 324

40 SEQ ID NO:3160
SEQUENCE LENGTH:322
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03730

45 SEQUENCE DESCRIPTION:
GATCTTGGTT TTAATTAAC TATTACTCTA TTAATATAAC CTTGGAATTC TATTCTAATN 60
ATGTTGTTCT GGCTGCTTGT AGTATCAGTT CGCCCCCTCT GTTAGGGAGA TATGTAACAA 120
TCTGTCATTT AATTGAGCAG TCTTTTTCAC ATAACAGTAA TAGCAAAAAT CCTACCTACT 180
CAGAATCATC TNCTTAGGTT GTCTCCTAAA TCTGAACAAT ACAGTTGTTT TATAAANTNN 240
CATTNGTCT CTTGAGATTN AATCAATTAG AACTCTTTAG GGAGAAAATA AATANTAGAN 300
50 GAAANTATAT GCCTCANATT GN 322

55

SEQ ID NO:3161

SEQUENCE LENGTH:320

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03731

SEQUENCE DESCRIPTION:

GATCTGACTT TTTTCCTTCT CAAAAGAATC ATACTTGGGA TTACAGGTAC ATTTNATGTT 60
ATATNATGGA TAAGTGAAAA NTTTTAAAG GAGATTTTAT ACCTTTTCAC ATTAAAAAG 120
GTATTTATAT TATNACTTTG TAGTGATTGT CTTAAGAAAA AATATAGCCC AAATGTATAG 180
TAAATCAGC AGCTCAAGAA GAATTTCTGC TTCTNTTGT AGTTGATGCT TTGTTTTTNC 240
CTGCAGTCAG AAATTCCTTG TATTTGTCAA ATGTATAATC AGCTTGTATT GTTTTTAAAT 300
TAAANAAAAA TTGANTAAA 320

SEQ ID NO:3162

SEQUENCE LENGTH:320

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03732

SEQUENCE DESCRIPTION:

GATCTGAAAA NAAACCTTAA TACGCTCATA TGGTTGGAGT GTTAAGTGAA CCTNTGATTT 60
TTTNAGGGTT TTTNTACGTG TAGGCGTGAA TAGGGGGCAC CCCTTCAAAA CTGTACAAAAG 120
AAGACGACTG TTTTCATTT CCATTTAAAC ATTTTtagcc ACTTCATTTC TATTTATTGA 180
ACAGGTCAAA TTTGTNTTGT TATTTGTGAG TACAGTACAT TAAAAAACA TCCTTATCGG 240
TTATTTTTTT TTCAGTCGGA GTTTGACGTA TAAATNGTTT ATGCTTTTGG TGAATCTCT 300
TAATAAACTG GTTCTTCAAA 320

SEQ ID NO:3163

SEQUENCE LENGTH:180

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03733

SEQUENCE DESCRIPTION:

GATCAGCTAG CTTGATTCTT GTGTACTTTT TTNAACTGT GGGTTTTCTT AGTAAATTTA 60
ATTACAGAA ATNAATGGTA GCATTTAGTA ATCTACAAAG GAAATATCAA AGTNTTTTNN 120
AAGCCTGTNA TATTCAGTGT GTGCCACAGG ATTGAAATAA ATGACAATGT AATTATGAAA 180

SEQ ID NO:3164

SEQUENCE LENGTH:303

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03734

SEQUENCE DESCRIPTION:

GATCAGAATT CCGATTGAC GGGCAACCAA TCAATGAAAC AGACACACCT GCACAGTTGG 60
AAATGGAGGA TGAAGATACA ATTGATGTGT TCCAACAGCA GACGGGAGGT GTCTACTGAA 120

AAGGGAACCT GCTTCTTTAC TCCAGAACTC TGTTCTTTAA AGACCAAGAT TACATTCTCA 180
ATTAGAAAAC TGCAATTGG TTCCACCACA TCCTGACTAC TACCGTATAG TTTTCTCTAT 240
TCTTTCATTT CCCCCTTCCC CATTCCCTTA TTGTACATAA AGTAACTGGT ATATGTGCAC 300
AAA 303

SEQ ID NO:3165
SEQUENCE LENGTH:311
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03736

SEQUENCE DESCRIPTION:
GATCTAGAGC CAGGCTGGTC AAGACAAGAA TTGGCTGGAA TAGGCTGCTC TTCCCCCATT 60
CCATCATGTG CTGTCCCCAC CCCTTTGGCC ACCTGGGCTG ACTGTGTCTT AATACCTCAA 120
GTGCAAGTAT ATAGGAGTAA GAAATNAACA ATGCCTGCCT CCTTATACTC ATGCCTACAT 180
TGTATGACAT CTAGTATGAA AGGGAAACAT TAAAGGAAAA CCCTTGTTTT GCTCTAAAAC 240
CTGAGGACGG TAAACACTGA GAGTAACCTG GTGCTTGTTT TGAAGTAAAA CACAAATACT 300
TCCCTTTTAA A 311

SEQ ID NO:3166
SEQUENCE LENGTH:309
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03737

SEQUENCE DESCRIPTION:
GATCAAGGGC AATGCCAATG AACATCGGCA TGGATTATAA TTATGCCCTC CTGGAACTCA 60
AAAAGCCCCA CAAGAGAAAA TTTATGAAGA TTGGGGTGAG CCCTCCTGCT AAGCAGCTGC 120
CAGGGGGCAG AATTCACCTC TCTGGTTATN ACAATNNCCN NCCAGGCAAT TTGGTGATC 180
GCTTCTGTGA CGTCAAAGAC GAGACCTATG ACTTGCTCTA CCAGCAATGC GATGCCCAGC 240
CAGGGGGCAG CGGGTCTGGG GTCTATGTGA GGATGTGGAA GAGACAGCAG CAGAAGTGGG 300
AGCGAAAAAN 309

SEQ ID NO:3167
SEQUENCE LENGTH:309
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03738

SEQUENCE DESCRIPTION:
GATCTTGATA TGTTTAAACA TTATCATGGC AGGGAAATAT ATAAAGAAGA AAAATATTTT 60
NACATTAAAC CTTTCTAAA ANTTGTAAAT AGAAAAATAA TTTGGTTTTT NATCAAGANC 120
AACACTTATC GTTATGTATT GTGTTAGTTA TATTGCCAGT CTGTTGCGAC TGA CTCAAAA 180
AGTTAAATGT TGCCACTGCT GANGATGATT ATGNGCATCG CANACTTTGT TTCTGNCCCA 240
TTTTGGCAGT TTNATATAC TCCNTTAAGA TGTTGAATGT TACAGGTTAN TAAAGTTAAT 300
ACCTTTAAA 309

SEQ ID NO:3168

SEQUENCE LENGTH:306

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03739

SEQUENCE DESCRIPTION:

GATCCTTTAC AGAAAAAGTT TTCTGACCTC AATTCTAAAG TAATTGTAGT AGGGAGCTGG 60
AGGACTTTCT TTCCCTTTAT GGTAATTTTT TGAGCTACAA AAGAGCCTTG CAGAAATGGG 120
TGAAGGGGATT AANCTTTTAA AAATAAATGC TATATATTAG GAAAAATAAA AATATTTTAG 180
AGCCAAGTTA ACAAGTACTT CAGCAAAACA TGCTAGTTTT ATGCAGGGGA TTCTGTATTC 240
CAAATGGATA CANTCCGACA TATATAAAG AATCAGATTC TTAATATTG ACTCTTATTT 300
NGCAAN 306

SEQ ID NO:3169

SEQUENCE LENGTH:306

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03740

SEQUENCE DESCRIPTION:

GATCATACCC AGAATTCAT GTTTGATATT TTAAGAATGT ATGTTCTAGT GTTTTTNAGA 60
GTGAGTCTAC CATCTGTATA AAAACACCTT GGGGGCAGGC AGGGGCATTT AAAAATGTAG 120
GACCTATCGT CCAGACTCAC AGAGTGGGGC TCCAGAATCT CCATTTTAA CAAACTCTCT 180
TAAGTAATTC TGATGTGTAC CAAAATCAGT GCCATTGGTG TGTGTGTACG TAACTATATA 240
CATATGTGTG TGTGTGTATA TATATAATGT GTCATAACCG TAAACAATAA ACAATATCAA 300
GNTAAA 306

SEQ ID NO:3170

SEQUENCE LENGTH:306

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03741

SEQUENCE DESCRIPTION:

GATCTGTCAT GTTAAACCC CCTACTTCTA AGGGAACCTC TCTAATCTCT TATCCTCATC 60
CCCAAATAGT GTTTCTTCC TCTGGGTCTT TATAATNTTG GTATCAATCT CACAGCATTT 120
AGTGCTTCCT GCCTGGTGTG ACAGTTACCT GTGTGCATGT GCAATTTCTA ATTTCCACG 180
CTAGACTGTG AGCTTCCTAA GGCAAGAATC ATGCCTTGTG GGTTCCTGTA TTCCTCATGG 240
TGCCAAACAC AGTGCCTTCT ACATTGCAGG CGCTGAATAA ACATTTTAA AGCAAAAAAA 300
TTNAAA 306

SEQ ID NO:3171

SEQUENCE LENGTH:305

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03742

SEQUENCE DESCRIPTION:

GATCTCCAGT GGTCAAAGA CATTACCCT TAATATCAGA CAACATTTAT ATTTTAGTGA 60

5 AGAAACAAGT TCTCGGGTGG GGAATCTATG TTCTACTCAG ATTTATATGT TTGGAGGAAA 120
 AAAGCCTTTT TTGTAAAAAT ATTTAAATTT ATATANGAAA ATGTTAGAAA AAAATATGGG 180
 GGAGTGTATT ATAAANCCTG CTTTATTTGC CATGGGGCCN GGGGGAGGCC NGGCCTAATA 240
 CTCCTAAAGT ANGTGTTNGG GNCCTNTTTT TCTTCCAATC CACCTGGTGC TGTTCNTGT 300
 AANGN 305

10 SEQ ID NO:3172
 SEQUENCE LENGTH:303
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03743
 SEQUENCE DESCRIPTION:
 15 GATCTCCGGG AGGGACAGAT GGCCAATNTC TCCCTTCCA AAGCAGGCC TGCTCCCCGG 60
 GCAGCCTCCC GCCGAGGGGC CCAGCCCCCA ACCACAGGC AGGGAGGGGC ATCCCTCCCT 120
 GCGGACCTCA GGGAGCGAAC GTGGATGAAA ACCACAGGA TTCCGGACGC CAGACCCCAT 180
 TTNACTTC ACTTTTCTCT ACAGTGTGT TTTGTTGTG TTGGTTTNA TTTTNATAC 240
 20 TTTGGCCATA CCACAGAGCT AGATTGCCCA GGTCTGGGCT GAATAAACA AGGNTTTTCT 300
 AAA 303

25 SEQ ID NO:3173
 SEQUENCE LENGTH:306
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03744
 SEQUENCE DESCRIPTION:
 30 GATCACTTTT GAGCTCTGAA GCTTTGAATC ATTCAGTGGT GGAGATGGCC TTCTGGTAAC 60
 TGAATATTAC CTTCTGTAGG AAAAGGTGGA AAATAAGCAT CTAGAAGGT GTTGTGAATG 120
 ACTCTGTGCT GGCAAAAATG CTTGAAACCT CTATATTCT TTCGTTTATA AGAGGTAAAG 180
 GTCAAAATTT TCAACAAAAG TCTTTTAATA ACAAAGCAT GCAGTTCTCT GTGAAATCTC 240
 AAATATTGTT GTAATAGTCT GTTCAATCT TAAAANGAAT CAGTAAAGC AAACAAGGGG 300
 35 TTAAAA 306

40 SEQ ID NO:3174
 SEQUENCE LENGTH:301
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03745
 SEQUENCE DESCRIPTION:
 45 GATCAGCAAA CACGATAGAG GAGACCAGTC AGTACTTCTT GGAGGGGGCN GGAGGAGAGA 60
 GGAAAAGGGA GGGCGAGAAT NACCACACAA CACAGCCNTT NGACCATGAG CAGAAGCGTC 120
 CGTGGGAACT CCACTGGGGT NGATGGGCTG CCTGCACAGC CCCTGGAGAG GGGGCCAGGC 180
 ACACCCTCAG AGGAGCTGCA ACCCGTGGCC TGGCCTGCTA CATGCCCTGC TTCCACGTGG 240
 NTGCCACGGT GACACANCCA CATTNACCAA TCCCNCCGG GTCCTGGGA CGNAGNCACG 300
 50 N 301

55

SEQ ID NO:3175

SEQUENCE LENGTH:299

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03746

SEQUENCE DESCRIPTION:

GATCAAAAGTT GTCATGAATA CTGACTTGGG CGTGGGACCC ATCCGAGATG TGCTGCACCA 60
CATCTACAGT GCGCTGTATG TGGAGCTGGT GGTGAAGAAT CCCCTGTGCC CGCTGGGCCA 120
AACTGTGCAA AGTGAGCTCT TTCGCTCCCG ACTGGACTCC TATGTTGCGT TTCTGCCCN 180
NTTCTCCGCC CGGGCTGGCT GAAGCAACCT ACCTCAAGTN TCAGGAGAAT TCATGTCTNC 240
CTGGGGCCCT TCCGAACCTT GTGCCAACTA AGGGCCCCCA NTGTAAGCCC CCGTACCTN 299

SEQ ID NO:3176

SEQUENCE LENGTH:298

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03747

SEQUENCE DESCRIPTION:

GATCTGAATT ACTACAGAAA AATAATTATG TTGCTTGCTT AATNATCCC AGGAACTTC 60
GTTGTAGGCA TATATTTTAT AAGAGTATTA TACAGTGTTA ACTATGCAAG TAAGTTCTAA 120
AATNACACAA TNATCTGTGT AATGTTTTAG TCCAATNACT GTGATTATT CAACTCTGTT 180
CTAAAGTTAT CTGGAATTGT CATGCTGCCT CAATTTACAG AAATCTATAA TAGATTCTA 240
TAGAAATGTA TAAAGACGTA GCAGTCATTT TGTGTTTCT AAATAGATAA CATATAAA 298

SEQ ID NO:3177

SEQUENCE LENGTH:297

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03748

SEQUENCE DESCRIPTION:

GATCAGAGTA TGGGTTCTCC ATGTAGCAAT ACTTCAGTGA GATTAAGTAT AAACAGTTT 60
TGGCAAAAAA CAACACAGTC TACTCTTCT GCTTACAAAG ACAAAGCCTT ACAAACCTAC 120
TATGAAGGTA AAGGGAGGAC AGCTTGCTTC TTTGCCCAGA CATTACAAA GTTGTTTTTA 180
AANCACACTC ATAAGTAAGT TTGGCAAGTT GTTTAAAAA TGCTCTTTG TTTGTACAG 240
TTCTGTTAGA TGTTGTNATA TTTAANAGT TTAATTTANA ANNTTNATT TNGTCCN 297

SEQ ID NO:3178

SEQUENCE LENGTH:297

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03749

SEQUENCE DESCRIPTION:

GATCTNATTA CCTTCACGGA AGGAAGCGGA CGCTCACCAC GCTATGCCCT CTGGTCTNT 60
GTGGGGGAGT CATGGCCCCA NNACCAGCCG TGGACCAAGA GGCTCGTNAT GGTCAAGGTT 120
GTGCCACGT GCCTCAGGGC CTTGGTAGAA ATNGCCCGG TAGGGGGTGC CTCCTCCCTN 180

GAGAATACTG TNGACCTGCA CATTTC AAC AGNCACCCAC TCTCNCTTNA CCTCCGACCA 240
GTACAAGNCC TACCTGCAGG ACTTGGTGGG GGGNATGGAT TTCCAGGGNC CTGGGTN 297

5

SEQ ID NO:3179
SEQUENCE LENGTH:295
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

10

CLONE:HUMGS03750

SEQUENCE DESCRIPTION:

15

GATCATCACA TTTCGTGAAT TGAGGCCATG TTCAGGTGCT AAGGAAGTAT GCCTTTNACA 60
CAGAAGATTG AGAAAAATTC CTAGATATAA ATACAGATAA ATCAGACGTT ACAGTGGTGA 120
CGTAGTAACC ATCATGGCAA TGGAAAGNAG TCCAATTCAT AGCCTAAAAC TTCAAATGTA 180
TTCTTAGGAG TCAGATTTTA CTGAATATTT TACCCACAAT AGCTGCCTAT TTTGTTATAA 240
TAAATATAT ATAANTNTAT NTCTNNNCCT TCCTTTAANC TGTAANA NNNAN 295

20

SEQ ID NO:3180
SEQUENCE LENGTH:295
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03751

25

SEQUENCE DESCRIPTION:

GATCCCAGCA CTACTTTTTA TTAGTGGAGA AATGGGGGGG ATAGAAAATT CTACTTTGAA 60
TTATTTAGTT TTTTAAAG AGTGGGTTGT GTTGTNCTT CTCCCACCTT TCAGCATTTA 120
TAGAACATGC TGCCCCACAT ACAAAGTCAA GACCACTTAC TTTATGTGA CACTAGTAGT 180
TTGGGGTTAA TGTTTGTGT AAGANCAGCT GCATATGAGT AAAGTTACCC CAACCACAGT 240
GAGGAGGAAG ATGTTACAT ACTGGAAGT TCCTGCCAAA TAAATTTTGC CCCTN 295

30

SEQ ID NO:3181
SEQUENCE LENGTH:294
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03752

35

SEQUENCE DESCRIPTION:

40

GATCAGTTAA TGCTAAGAG TGAAGTAGT TCTATTGACA TTCCTCAAGA TATTTAATAT 60
CAACTGCATT ATGTATTATG TCTGCTTTAA TCATTTAAAA ACGGCAAAGA ATTATATAGA 120
CTATGAGGTA CCTTGCTGTG TAGGAGGATG AANGGGGAGT TGATAGTCTC ATAAACTAA 180
TTTGGCTTCA NGTTTCATGA ATCTGTAAGT AGAATTTNAT TTTACCCCA ATAATGTTCT 240
ATATAGCCTT TGCTAAGAG CAACTNATAN NTTANCCCTA TTCTNTCTGT GAAA 294

45

SEQ ID NO:3182
SEQUENCE LENGTH:293
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03753

50

SEQUENCE DESCRIPTION:

55

EP 0 679 716 A1

5 GATCCGTGCT GGAAACTCGC AGGGGGACTT TTACATTAGG CAAATCAACA ACGTCAGCGC 60
CATGCTGGTC CTCGCCCGGC CGGTGACGTG CCCCCGGGAG TACGTGCTGG ACCTGGAGAT 120
GGTCACCATG AATTCCTCA TNAGCTACCG GGCCAGCTCT GTACTGAGGC TCACCGTCTT 180
TGTAGGGGCC TACACCTTCT GAGGAGCAGG AGGGAGCCAC CCTCCNTGCA GCTACCCTAG 240
CTGAGGAGCC TGTGTGAGG GNCAGAAATGA GAANGGCAAT AAAGGGNGAA AGN 293

10 SEQ ID NO:3183
SEQUENCE LENGTH:293
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03754
SEQUENCE DESCRIPTION:
15 GATCTGTGGA CTTTNATTTT TTTAAGAGAC TTAACAATT TNATGACTGT ACTACCTGAA 60
ACAAAGTGAG AAAGGACAGG TGTATTTTTC TAAGTNATCA AGATAAATCC TTAANAATTC 120
AGTCTAAATN AGCAACCAGG AAGGAAAAAT ATATTAAAA CAACAAAAAA GTGGCACATG 180
TCCAGGCAGT GTGAGGATTT GCTGTATATA AGTTGCCTGC TTTGTATTNT TNAATCTCT 240
GCATCACTCA TTGGAAGTGC TTCTNAAGAG AGCTGCTCTG TGTTCAGTTG AAA 293
20

25 SEQ ID NO:3184
SEQUENCE LENGTH:395
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03755
SEQUENCE DESCRIPTION:
30 GATCAAGATG ACCAAGATGT ATAAAGGGTT CCAAGCCTTA GGGGATGCCG CTGACATCCG 60
GTTCTGNTAC ACCCCCGCCA TGGAGAGTGT CTGCGGATAC TTCCACAGGT CCCACANNCC 120
GCAGCGAGGA GTTTNTCATT GCTGGAAAAC TGCAGGATGG ACTCTTGAC ATCACTACCT 180
GCAGTTTNT GGCTCCCTGG AACAGCCTGA GCTTAGCTCA GCGCCGGGGC TTCACCAAGA 240
CCTACACTGT TGGCTGTGAG GAATGCACAG TGTTCCTCTG TTTATCCATT CCCTGCAAAC 300
TGCAGAGTGG CACTCATTGC TTGTGGACGG ACCAGCTCCT CCAAGGCTCT GAAAAGGGNT 360
TCCAGTCCCG TCAACTTGCC TGCCTGCCTN GGGGN 395
35

40 SEQ ID NO:3185
SEQUENCE LENGTH:290
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03756
SEQUENCE DESCRIPTION:
45 GATCAGCACT TNANTCGGAA AGTTGGAACC TCTGACAAGA CCAAGTACTA CCTTCAAGGT 60
AATCCGTGGC TTCCACAAA GTTCCACATT TAACTTCCTC CAAGGAAGGG GATTAAAATT 120
TNAACTAAC TCCCTTCAGT TGAATCTCG GACCACTNNN NAAAACAAAA ACCATGGTCT 180
AATTNTTNC TTTGTTATGA ATTTNTTGAC AGTGGATTGA GCGATACGTG TCAGANCTAN 240
GCATTTCACT GTAGGCAAAT TGTGTCTTAG TTATCANGTA AATGTACAAA 290

50 SEQ ID NO:3186

55

SEQUENCE LENGTH:288

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03757

SEQUENCE DESCRIPTION:

GATCCAGATG ACTGAATTC AGATAGCATT TTTATGATTC CCAACTCATT GAAGGTCTTA 60
 TTTATATAAT TTTTCCAAG CCAAGGAGAC CATTGGCCAT CCAGGAAATT TGGTACAGCT 120
 GAAATATAGG CAGGATGTTT AACATCAGTT TACTTGCAGC TGGAAGCATT TGTTTTTGAA 180
 GTTGATACATA GTAATAATAT GTCATTGTAC ATGTTGAAAG GTTCTATGG TACTAAAAGT 240
 TTGTTTTATT TTATCAAACA TTAAGCTTTT TTAAGAAAAT AATTGGGN 288

SEQ ID NO:3187

SEQUENCE LENGTH:288

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03758

SEQUENCE DESCRIPTION:

GATCCCCAAA AAGTGAATAT CAATGGAGGA GCTGTTTCTN TGGGACATCC AATTGGAATG 60
 TCTGGAGCCA GGATTNNTGG TCATTNACT CATGCCTTGA AGCAAGGAGA ATACGGTCTT 120
 GCCAGTATTT GCAATGGAGG AGGAGGTGCT TCTNCCATGC TAATTCAGAA GCTGTAGACA 180
 ACCTCTGCTA TTTAAGGAGA CAACCCTATG TGACCAGAAG GCCTGCTGTA ATCAGTGTGA 240
 CTACTGTGGG TCAGCTTATA TTCAGATAAG CTGGTTTCAT TTTTNATN 288

SEQ ID NO:3188

SEQUENCE LENGTH:285

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03759

SEQUENCE DESCRIPTION:

GATCAGCAGC TGTGAAAATA AAGCTTGTNA GCCCTCTGCT GGCCACAGTA NAGGAAAGTA 60
 GCACAAATAG GATACAGTTG TATGTAGTCA TTGGCAACAA TTGCATACAA TTTTACTACC 120
 AAGAGAAGGT ATAGTATGGA AAGTCCAAAT NACTTCCTTG ATTGGATGTT AACAGCTGAC 180
 TGGTGTGAGA CTTGAGGTTT CATCTAGTCC TTCAAAACTA TATGGTTGCC TAGATTCTCT 240
 CTGGAAACTG ACTTTGTCAA ATAAATAGCA GATTGTAGTG TCAAA 285

SEQ ID NO:3189

SEQUENCE LENGTH:284

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03760

SEQUENCE DESCRIPTION:

GATCTCACCA TTATGACATC CATCCCCCTA GCTCACCACA TAGCACATAG AATGATATTT 60
 TTAATTTGTA AGAGGCCATC CAGGTACTAA GGNCCCAAGG CATACAGATT CACAAAATNA 120
 ACTAATCTTT TTGCCTCAGA ATACCAAAAC ANCAAAAANTA TAAAGCTGTA TTTGGACANC 180
 TANAAAACAC CAAACTATCT CATTGCAATT NGTATTGTAG CAGATGTTCA GCAACTATCC 240

TAATCANTGT TATTGTGTTT CANTTTAACT GGGTTAAATG TTTN

284

SEQ ID NO:3190

SEQUENCE LENGTH:282

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03761

SEQUENCE DESCRIPTION:

GATCTCGACT CCCCCCTGGC CACAGACCCC CAGGTCATTG TGTTCATTGT ACTCTGTGGG 60
 CAAGGATGGG TCCAGAAGAC CCCACTTCAG GCACTAAGAG GGGCTGGACC TNTGCGGCAG 120
 GAAGCCAAAG AGACTGGGCC TAGGCCAGGA GTTCCCAAAT NTGAGGGGCG AGAAACAAGA 180
 CAAGCTCCTC CTTGAGAAT TCCCTGTGGA TTTTAAAC AGATATTATT TTTNTNATTA 240
 TTGTGACAAA ATGTTGNTAA ATGGGATATT AAATAGAATA AA 282

SEQ ID NO:3191

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03762

SEQUENCE DESCRIPTION:

GATCTGGAGA AGTAAGATGG CCAAATAAAA GCCTCTACCA ATCATCCTCC CCACAGGAAC 60
 ACCAAATTTA AGAACTATCT ACACAAAAAA GCACCTTCAT AAGAACCAAA AATCAGAGAG 120
 AACAAAGGATA AAGAAGTATC CAAATACAAA GAAAATGTTA TGCAAGTGAC CTTTAGAGAT 180
 GTTTTAAAGA TGACAAAATA TTGATGANGA TGGGCCAACA AGTGTTACTG TTACCTCTAA 240
 TAAAGTTTCA TCACTAGTTT CACCATGGTT AATTGGA AAA 279

SEQ ID NO:3192

SEQUENCE LENGTH:277

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03763

SEQUENCE DESCRIPTION:

GATCTGCTCA AATGCACCAA CACTGCCAAG TGAATAAGGT AGAAAAGAAA AATAACAGGT 60
 ATCGTCATCT GAAGGACAGA TGAATCTTTT TCTGCCCCCTT CTTCACAATG GAATATAAGG 120
 AACAAATTATG GGATGTCATC AGAATGGATG CCATAGGACC TACAGCTCCC TTTCTNTTTA 180
 TTGTNATTAT ACTTTAAATA TGACATTGTC TTTNATGTGT ATGTTCTAT ATTTTCAATG 240
 TATCTTTTTC CTTAGTAAA CCTGATATTC AAATAAA 277

SEQ ID NO:3193

SEQUENCE LENGTH:277

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03764

SEQUENCE DESCRIPTION:

GATCACAGGG AGCCTGTGTT TGTGGAGGT GTTCCAGAAT CTNTACTGAC ACCACGCTTG 60

GCCCCAGCA AACCNITCAC AGGCTGCATA CGCCACTTTG TGATTGATGG ACACCCAGTG 120
 AGCTTCAGTA AAGCAGCCCT GNTANGCGGC GCCGTANGCA TCAACTCCTG TCCAGCAGCC 180
 TGACATGACA NAGCACAGCT GCCCAANTAC AAAGTTCTTT AGNGCAATGN AAGNAACACA 240
 AAAGCCAGNC CAGGAGGCNC CAGTTNCTTA TTCCTTN 277

SEQ ID NO:3194

SEQUENCE LENGTH:272

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03765

SEQUENCE DESCRIPTION:

GATCACAGAA GCCACTGCAC TCCAGCCTGG GTGACAGAGT GAGACTCTGT CTCAAAAAA 60
 AATTAAATAA ATTATTATAA CCTTTCAGAA ATGCTGTGTG CATTNNATG TTCTTTTTTT 120
 TAGCATTACT GTCACCTCC CTAATGAAAT GTACTTCAGA GAAGCAGTAT TTGTAAAT 180
 AAATACATAA CCTCATCTG ANTAATGTCC CTCATTTTGA CTATAACTGT GCTTGGTTTC 240
 AAANGCAAAN TTAANCAAAA ATCTCAGTCA AA 272

SEQ ID NO:3195

SEQUENCE LENGTH:272

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03766

SEQUENCE DESCRIPTION:

GATCTCCTGC TGGTCAGTGG GGGGGCGGCA GCACTACCGT GGCCTGGTAC CAGGTGAGCC 60
 CGCTGGCCGC CCGCCTGCTC TACCCCTACC TGGCCTGGCT GGCCTCGCG ACCACACTCA 120
 ACTACTGCGT ATGGCGGGAC AACCATGGCT GGCATGGGG ACGGCGGCTG CCAGAGTGAG 180
 TGCCCGGCC ACCAGGGANT GNAGNTGNAC CAGNAGGTGC CATNANGTTT NTAATNTAGT 240
 GGCCGTNANG TTTTAATGAC CANTGGGNCT GN 272

SEQ ID NO:3196

SEQUENCE LENGTH:269

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03767

SEQUENCE DESCRIPTION:

GATCCCATCT NTTTTCCCTT CTTTCCTCCT GGTCCGGTC AGTTCAGAGG ATTTAACAAT 60
 CACAAGTGTC CTGCAAAAAT;GCCTGAACAT TATTCTTAGG CCCTCGTGA TTTTTTTTT 120
 CAGAAACTT AAACAAAAA NGACTTACTA NGAAATATGT ACAGTACCC CTGTTTTCAG 180
 GCACTATGTT TGNGANCATT TTNGCCATTG ANGTTACAC GTGGCATCAG CCCATGCAAG 240
 ATAGGTTTCT GTATTNNTAT ATNANNNTN 269

SEQ ID NO:3197

SEQUENCE LENGTH:269

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03768

SEQUENCE DESCRIPTION:

5 GATCCAGCGA GGGGTCCAGG CCCTCTGCAT CTCCTCAGGC TCCAACCCTG CTCCTCAGC 60
 AATNAGCTCT CCTCCAGCTT TGGCTTTGGG AAGCCAGACT CCAGGGACTG AAAAGNAGCA 120
 ACAAGGAGAG GGTCTGCTTG AGAAATGCCA GATGCTTGGT CCCCAGGAAC TAAGGCGACA 180
 GAGTGCAGGG TGGGGGCAAG ACTGGGCTGT AGGGGAGCTG GACTACTTTA GTCTTCCTAA 240
 AGGACAAAAT AAACAGTATT TTATGCAAA 269

10

SEQ ID NO:3198

SEQUENCE LENGTH:267

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS03769

SEQUENCE DESCRIPTION:

20 GATCCCCTGG AGCCCAGGAG GNAGGTGTGT NAGCTCAATC CGGACTGTAN CGAGTTGGCT 60
 GACCACATCG GCTTTNAGNA GGCCTATCGG CGCTTCTACG GCCCGGTCTA GGGTGTGCGT 120
 CTGCTGGCCT GGCCGGCAAC CCCAGTTCTG CTCCTNTCCA GGCACCCTTC TTTCTCTTC 180
 CCCTTGCCCT TGCCCTGACC TCCCAGCCCT ATGGATGTGG GGTCCCCATN ATCCCAGCTG 240
 CTCCCAAATA AACTCCAGAA GAGGAAA 267

25

SEQ ID NO:3199

SEQUENCE LENGTH:266

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03770

SEQUENCE DESCRIPTION:

30 GATCTGAACC TGTCAATTGA AGTACAGGTT AAAGACTGTG TCCACTTTGG GCATGAAGAG 60
 TGTGGAGACT TTTCTCCCC ATTTTCCCTC CCTCCTTTT CCTTTCCATG TTACATGAGA 120
 GACATCAATN AGGTTCTCTT CTCTTTCTTA GAAATATCTG ATGTTATATA TACATGGTCA 180
 AATAAATAAA ACTGGCCTGA CTTAAGATAA CCATTTTAAA AAATTGGGCT GTCATGTGGG 240
 AATAAAGAA TTCTTTCTT CCTAAA 266

35

SEQ ID NO:3200

SEQUENCE LENGTH:265

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03771

SEQUENCE DESCRIPTION:

45 GATCTGACTT GGGGAAAGGG TTATCAGAGC CTAGAGGGGC TAAAAAGTA ATCATTTGAT 60
 GTACATACCA CACTCCTTGG CTTCCTTCT CTTCCTTAA CCCTTTCTGC TTTTCATTAA 120
 CCACATTCTT GCACAACTCA TTTCTGAAAA CCTACCATGT TTCTTTACAG AGCCATCCAA 180
 AAATTTTTTG TCCCTACATA GCAATTTTCT GTGGCACTGA GAAACCATGT ATGACCACAA 240
 TAAAAATCCA TTTTGTGAAA GGAAA 265

50

SEQ ID NO:3201

55

SEQUENCE LENGTH:262

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03772

SEQUENCE DESCRIPTION:

GATCTCAGCT CACTGCAACC TCTGCCTCCT GGGTTCAAGC GATTATCCTG CCTCAGCCTC 60
 CTGAGTAGCT GGGATTACAG GCATGCGCCA CTATGCCAG ATAATNTTTT TGTATTTT 120
 GTAGAGACAG GGTTTTACCA TGTGGCCAG GCTGGTCTGG AACTCCTAAC CTCAGGTTAT 180
 CCACCCACCT TTGGGCCTNC CAAAGTGCTG GGATTATAGG CATGGANCCA CCGTGNCTGG 240
 NCANAGATGT AAGTNTAAAT TN 262

SEQ ID NO:3202

SEQUENCE LENGTH:260

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03773

SEQUENCE DESCRIPTION:

GATCCACCTG CCTCGGCCTC CCAAAGTGCT GGGATTACAG GCGTGAGCAC CATGCCANC 60
 CACCTTTTCT ATNTTATAGT ACATAAACAC TCACCACTGT GTCACAGTCA CCTACAGTAT 120
 TCAGTACAGT AGCATATGCT GTACAGGCTT GTAGCCTAGG AGCAATAGGC TATACCATAT 180
 AGCCTAGGTG TGTACACCAT CTAGGTTTTT CTAACCTACAC TCTATGGNGT TCACACAATA 240
 AAATTGCCCA NCGACGCAAA 260

SEQ ID NO:3203

SEQUENCE LENGTH:225

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03774

SEQUENCE DESCRIPTION:

GATCCAGCT TATGGCCTTG ACCCAGCCGT CCTCACAGAT GCCGGGTGAC CCTCTAGCTC 60
 TCTCTGCATC TCCCACCCCG CGACACCCTG GGACCCTCGA CCCCACCCTT CTTTCCTACC 120
 AGCCACAGAGC CTTGTGGCTT GTACAGTTTT GAAACTCCCG TTCTATTTTA TGATGGTTGA 180
 TAATAGTCAG TAACNNAATA AAGGAACGTT TGTAAAAATA TCAAA 225

SEQ ID NO:3204

SEQUENCE LENGTH:216

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03775

SEQUENCE DESCRIPTION:

GATCTGCCCG CGGCGNACCC GTGTTATGTT TTGTGCTGTG TCCACGCGCT AAGACGACCC 60
 CCTCCCCCGT ACTGACTTCT CCTATAAGCG CTTCTCTTCG CATAGTCACG TAGCTCCAC 120
 CCCACCCTCT TCCTGTGTCT CACGCAAGTT TTNNACTCTA ATATNNNNAT GGCTTTTTTT 180
 CTTGCGCAAA AAAATAATAA AACGTTTCTT CTGAAA 216

SEQ ID NO:3205

SEQUENCE LENGTH:256

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03776

SEQUENCE DESCRIPTION:

GATCTGACAC TTCCTTTCCA TTGCTTGCC TGAACAGACT GACCTTGTA ACTTAAGCCT 60
GGAGTCCATG CCTCGTCTC CTTTGTTC TTGCTGTAC CAAGAAAGCC AAGGAAGAGC 120
AGCCTGACTC ATTCTTCTTG GCTGCAGCCT CTTCCCACT TCCTGGGAGT GACCCAGCGT 180
TATTCCTGCC TCCTCACTCC TATTCTCTTT GCCTTTGTGT AAAAATAAAA TGGAAATAAA 240
CAAGTTGCAC AGTAAA 256

SEQ ID NO:3206

SEQUENCE LENGTH:256

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03777

SEQUENCE DESCRIPTION:

GATCTCTTTT NATCATATAT GACATTAAAG CTACAGAAGT TTTGTGCAAN AATCTTAATT 60
CATATTTATN AATTCAAGG GAATATTGAA AGGTTTTAAA ATGGCATACA GATAATGGAA 120
AATAAGCTTT ATGTTTCAAG AAGGGCAGAC TCACGAATTT TTTAGAAAAC AGTGCTTCTT 180
AATGATATGC TATTATNCTT ATNAGTTATG TGCAAGCTTT GTATATNCTT ATATNTATAT 240
NTAACTNTAA CCCTCN 256

SEQ ID NO:3207

SEQUENCE LENGTH:253

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03778

SEQUENCE DESCRIPTION:

GATCCCAATT CGAGAGGTTC TAACCCAGAG ANCGGACATC TCGATTGCAC ACGTTCTGGT 60
TGCCCGAGCC GACCTGTCTT GTCTCGTCCC AGCCACCAGC GTGGCTGTGC GNAGAGGGAC 120
CTGCTGTGCC ATCAACAAGG TGCTTATGGG NAACGTTCCA TACCGGGGGN GCCGCCCCAA 180
TNAGCTGGAG CCTCCCATGC CCACCTGGAG NAGCNGAAGA GAGGATGGAG GCCCCAGTG 240
NNGGNNTCGC ANN 253

SEQ ID NO:3208

SEQUENCE LENGTH:252

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03779

SEQUENCE DESCRIPTION:

GATCATGNTT CATGTGCTAA AAATAAACTT GAAACACGGA AGTAGTGGTT GGTCCAGTTT 60
GAAAGCTCTT ATNAGTATTC TTCATCCTGG CTGTAATAAT AGCCATNATT TGTNATGCCT 120
TTGTTATGTA GCAGACACTC TTAAGNATTT NATGTGTATN ATTCAAATTG CTATNACTGT 180

TCTTTTATA GTTGAGAATC TCAGGATACC TACATTTATC ACTTTTTC AA TATATATGTA 240
TTTCTTATTA AA 252

5 SEQ ID NO:3209
SEQUENCE LENGTH:251
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03780
10 SEQUENCE DESCRIPTION:
GATCAAGCTG TCCGAACCTA CCAAGAGCAC AAAGCAAGCA TGCATCCCGT GACTGCAATG 60
CTGGTGGGGA AAGACTTAAA AGTGGATTAA AGACCTGCGT ATTGATGATT TTAGAGATTT 120
CTCTTTTATA AATGGAATTC GTAAAGAAAT ATAAACTTC AGCTCACAAT TAAACTGTC 180
15 TTTTAGATT TGGCTTTTA TTGTTTGTT GGTGATTTA CTGAAATAAA GTTGAGCTAC 240
TTCTTCTTAA A 251

SEQ ID NO:3210
SEQUENCE LENGTH:250
20 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03781
SEQUENCE DESCRIPTION:
25 GATCTTGTTG TCAGATGAAA GTGCAAGTTT TTATTAATTT GGATTGCCTG AACAGTGTAT 60
CCCATGATGA TGAAGGAAAA TGGAGAGATT TTTCTTTTA ACTCTGNNNN NTCAGAGATG 120
AAGCCACGCC TTTCCATTTT TCAATGCTGC ATATTTAATC TGCAACAAAA ATGTTAAGCC 180
ATAACAGCCT TTTTATATT TAGTTTGTC CCTTTGCATT GCAGAATAAA TACTGGNTAA 240
CCATTTTAAA 250
30

SEQ ID NO:3211
SEQUENCE LENGTH:251
SEQUENCE TYPE:nucleic acid
35 TOPOLOGY:linear
CLONE:HUMGS03782
SEQUENCE DESCRIPTION:
GATCTTACTT GCTCCTGCTT ACGAAGATTN CCCAATNACT GGTCACTCTGA CCCTACTTGA 60
ACACTCCTGA ACAGTCATGT TTTNAAAAT NTTCTTTAT ATCAAGTCAG AGAGTATACT 120
40 TCTATAAATT TNACTCATGG ATGTTAGGAA ATCTAGTCAT CTTCCCTGTG ATTGCCCTGT 180
TAAGTATTTA ACCATAGCTA TCATGTGTTT CCCAAATCTT CTCTAGATTA AATATCTTCA 240
GTTACTTCAA A 251

45 SEQ ID NO:3212
SEQUENCE LENGTH:250
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03783
50 SEQUENCE DESCRIPTION:

55

GATCTAGACT GAGAATCAGC CTGAGCTTTA CACAGCTGGG GTCTGTTACT CGCGTTTTGT 60
 AGACTTTTGT GTAACATTTT GTACCGTAGA CAGAATGTGA GGAGGAAGTA ACACACAGAG 120
 GAGGATGTGT GTGTATGCAT GTGTTTGAAT TCACAAGGAA GAAATTATTT ATCTTGAGCT 180
 TTTTCCTTTG TTATTCAATT TCTATTGATT TATTAGTAAT AACAAATGATA ATAAAATGTA 240
 AATGAGCAAA 250

SEQ ID NO:3213

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03784

SEQUENCE DESCRIPTION:

GATCTAACGT GTTCCAGTGT CTGTCTGAGG TGTCTTAAAA AATCAGAACA AAACCTTCTAT 60
 TATCCAGAGT CATGGGAGAG TACACNCTTT CCAGGAATAA TGTTTGGGA AACACTGAAA 120
 TNAAATCTTC CCAGTATTAT AAATTGTGTA TTTAAAAAAA AGAAACTTTT CTGAATGCCT 180
 ACCTGCGCGT GTATACCAGG CAGTGTGCCA GTTAAAAAAG ATGAAAAAGA ATAAAAACTT 240
 TTGAGGNAAA 250

SEQ ID NO:3214

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03785

SEQUENCE DESCRIPTION:

GATCATAGGT CTGGACACTC CATCCTTGCC AAACCTCTAC CCAAAAGTGG CCTTAAGCAC 60
 CGGAATGCCA ATNAACTAGA GACCCCTCCAG CCCCCAAGGG GAGGATTGG GCAGAACCTG 120
 AGGTTTTGCC ATCCACAATC CCTCCTACAG GGCCTGGCTC ACAAAAAGAG TGCAACAAAT 180
 GCTTCTATTC CATAGCTACG GCATTGCTCA GTAAGTTGAG GTCAAAAATA AAGGAATCAT 240
 ACATCTCAAA 250

SEQ ID NO:3215

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03786

SEQUENCE DESCRIPTION:

GATCAAACTG CCATTCACAG TGTAAAGGCAG CACTTAAATT TCGAACCTAA AGTTTAGATG 60
 CATTGTATAA AAAAACCTAA AAGCAGTATC TGTTNNTNNN GCTGTAAACC AAGTTGGAAG 120
 CTATTCGGAT AATTTCTTAA ATATTGATGA NCTTTGGAGT ACTGTTTCTN CCTTCAAAC 180
 GAATGTAAAT AATNCATGAT TAAATGCACC TNATATGTTT AANCAATCTT TGTATACTTN 240
 TGGGNTTTN 250

SEQ ID NO:3216

SEQUENCE LENGTH:252

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03787

SEQUENCE DESCRIPTION:

GATCGCCACA CTGCCACTCT GCTGCCCAGC CACCAGGATT TCTGCCTGGA GCCCTTTGCC 60
 CTGTCCCTGC TGCCTGAGGT GGCCTAGAGC AGAGGAGAAG AATTTGCTCC AGGCCAGGAG 120
 CACAAATCGT TGTTCATGA ATTTNTCTCC AACTCGACCT TGGTAAACGG AAATNTTGGG 180
 GGTGAAGAGA AACATCACT ATTTTNTCT TTTTATCTG GTAAATAATT AAAAGAAAAA 240
 CCGAACACTA AA 252

SEQ ID NO:3217

SEQUENCE LENGTH:336

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03788

SEQUENCE DESCRIPTION:

GATCTGTATT GGATAAGGAC CAATGNACAG CAAAGCAAAA ATGGCTTTAA AGCTTGGTGT 60
 TACTTTTNTT AAGTTGTTTA ATTATAGTTA AGCAATTTC AAAAAAGCTCC AAAGAAATGT 120
 GAAAGGACCT TTTGTCACAG CACTTCAGAA AATACACAAC AGCCCTTCT GCGCCGCAC 180
 AGAAATGCTG CAGAGTATAT AAAACTTGAG ACATTTTGT AGGATGCCTG ACGAGGTGTN 240
 GCCTTTTATC TTGTTCCGG ATGCATATT ATTACGAGTA CTCTGGTTAA ATATTGAAAA 300
 GTTATATGCT GTAGTTTTTA GTATTTTGT TTTGTN 336

SEQ ID NO:3218

SEQUENCE LENGTH:227

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03789

SEQUENCE DESCRIPTION:

GATCTCGAGT GTTATTTTCT GATTGTGGTG TTGAGAGTTG CACTCCCAGA AACCTTTTGA 60
 GAGATGCATT TATAGCCCTA GGGGTGGTAT GACCCAAAGG TTCCTCTGTG ACAAGGTTGG 120
 CCTTGGGAAT AGTTGGCTGC CAATNTCCCT GCTCTTGGTT CTCCTCTAGA TTGANGTTTG 180
 TTTTCTGATG CTGTTCTTAC CAGNTTGGGA AAAAAGTGTG GATTAAA 227

SEQ ID NO:3219

SEQUENCE LENGTH:248

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03790

SEQUENCE DESCRIPTION:

GATCTGCATA GAAAATTTN ATACAATTTT TTGAAAGTCC TTAGGTGAAA CATTTACCCA 60
 TTAAGGAGGA AGCAGAAATA CTGAGACATG AAAGGCATTA TCAACTAACT CTAGACTCTA 120
 GAACCCATTC TNGCATATCT CACGTGCAAT TTTTAAAAAT AAGTTAATAA TTCANCTCAT 180
 ATCAACAAAA GCCTTTGNN CATGGGTTN CACTNGATAT CACCTAGTGC TNANGNTAGA 240
 NGCCAANN 248

SEQ ID NO:3220

SEQUENCE LENGTH:245

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03791

SEQUENCE DESCRIPTION:

GATCCAGTGC TCTCCCATCT AACAACTAAA CAGGAGCCAT TTCAAGGCCG GAGATATTTT 60
 AAACACCCAA AATNTTGGGT CTNATTTNNA AACTTTTAAA CTCCTACTG ATGATTCTNA 120
 CGCTAGGCCA ATTTTCCAA ACACATAGTG TGTGTNTTT GTATACACTG TATGACCCCA 180
 CCCCAAATCT TTGTATTGTC CACATTCTCC AACAAATAAG CACAGNGTGG ATTAAATTAN 240
 GCAAA 245

SEQ ID NO:3221

SEQUENCE LENGTH:244

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03792

SEQUENCE DESCRIPTION:

GATCCACCCG CGTTGGCCTC CCAACGTGCT GGGATTATAG GCGTGAGCAC CACGCCCCGC 60
 CTAATAATCCA TATTCAAAGA AGCAATTTCA GTTCCTTTCT AAGCTTTGTC AGTCAAGGGG 120
 CTCCACTGAC TTCCTAGGCC CTGTAATTTA ACCAGTCTTT AAGGTTTTGC AGGAAAGTCC 180
 CTTCTTCCAA GTGGTTTTTC CAAATCGCAC AATGGCAAAG CCAAACAGAG GAAGAAACAT 240
 TAAA 244

SEQ ID NO:3222

SEQUENCE LENGTH:244

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03793

SEQUENCE DESCRIPTION:

GATCAGATTG CTGAAACACT ATGGGAACAG GTATTGAAGC CCCTGGGTGA TAATNTAATG 60
 GAGGAAAACA TAAGGCAGTC TGTAACAAAC TCTATCAAAG CAGGCCTGAC TGACCAGGTG 120
 TCTCATCATG CCAGATTAAA GACAGACTGA CAGTTCATCT CCTCACGGAC TCCACTCTCT 180
 TTTTTTTTNA TGCTTGCTGT ACAATGAGAA CTCAAATAAA ANTAAACCAA AGTTTACAAT 240
 CAAA 244

SEQ ID NO:3223

SEQUENCE LENGTH:246

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03794

SEQUENCE DESCRIPTION:

GATCCAGGAG GAGCAGCACC CGAGCCCTGG AGTGGCCCAG TACCCTTCCA AGAGGCCACA 60
 GTCCCAGCCA GGACAAAGTA TCGGCCCAT CCTGGTGCGN CAGGTGGGAC AATGTGAACA 120
 TGGACTCGAA GACATGGCCC TTTCTCTGTA GTTGATTTT TAAATGTGCC ATTATTGTTT 180

TTAAAAAANN CGGNAAAANG AAANGCANAC AAATAAAACA CCTTTAAGAG GCTTGAANGC 240
GNCAAA 246

5 SEQ ID NO:3224
SEQUENCE LENGTH:243
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03795

10 SEQUENCE DESCRIPTION:
GATCATAACT CATGAATATG TTTGTAATCA TGGTAATTGA GATTTTNATG AGGAATGAGT 60
ATCTGGAAAT ATTGTAGCAA TACTTGGTTT AAAATTTTGG ACCTGAGACA CTGTGGCTGT 120
CTAATGTAAT CCTTTAAAAA TTCTCTGCAT TGTCAGTAAA TGTAATATAT TATTGTACAG 180
15 CTAATCATAA TTTTAAAG TTTATGAAGT TATATTTATC AAATAAAAC TTTCCNATAT 240
AAA 243

SEQ ID NO:3225
SEQUENCE LENGTH:241
20 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03796

SEQUENCE DESCRIPTION:
25 GATCTGACCT TTTTTTCCA GTTGAAATGT ATTAACACAC CTTCCACAAT NATTTTATAA 60
GAGTCAGCAT AACATAGTGG ATAAGAACTG TGAGATGTTT AACCTCTCAG TAACTCGGTT 120
CTCTCATTAT AAAATAGGAA TAAATCAGT ACCTGTTTCA TATGAAGGTC GTTCTGAGA 180
ATTAATGGA CTAATGTATG CAAAAGCCT GGCAACAAT AAACACTCAT CTGACTTTAA 240
A 241

30 SEQ ID NO:3226
SEQUENCE LENGTH:240
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS03797

SEQUENCE DESCRIPTION:
GATCAAAATA TATTGTCCA GAAACTCTTG GGCCAGTTCT CTGAGAAGGA ACTGGCTGCT 60
GAAAAGAAAC GCATCCTGCA CTGCCTGGGG CTTGCAGAAG AAATCCAGAA ATATTGCTGT 120
40 TCAAGGAAGT AAGAGGAGGA GGTGATGTAG CACTTCCAAG ATGGCACCAG CATTGGTTTC 180
TTCTCAAGAG TTGACCATT TCTCTATTCT TAAAATTAAT CATGTTGGGG AAACAAGAAA 240

SEQ ID NO:3227
SEQUENCE LENGTH:239
45 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03798

SEQUENCE DESCRIPTION:
50 GATCCTCCCA CCTNCAGCCT CCCAAGTAGC TGGGACTACA GGCACATGCT ACCATGCCCA 60

55

GCTAATTAAA AAAAATTTT TTTTGTAGA GACGGAGTTT CACTGTGTG CTCAGGCTGG 120
 TCTTGAAGTC CTGAGTTCAN GCAACCTCC ACTTCAGCTT CCCAAAGTGC TGGGATTACA 180
 GGCATCACTG GCCCAGGCAG AGCCAATTNT GTATAATAAA TCTGTNTCTC TCTGTCAAA 239

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SEQ ID NO:3228
 SEQUENCE LENGTH:238
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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CLONE:HUMGS03799

SEQUENCE DESCRIPTION:

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GATCAAATTT NATTGAATGG TTTGAGGTG TAGCTCTATA AATAGTAGTT TTTAACATGC 60
 CTGTAGTATT GCTAACTGCA AAAACATACT CTTGTACAA GAGGTGCTTC TAAGANTTTN 120
 ATTGACATTA ATGACACTGT ATACAATAAA NGTGTAGTTN CTNAATCGCA CTACCTATGC 180
 AACACTGTGT ATNAGGTTTA TCATCCTCAT GTATTNTNNT GTGACCTGTA TGTNTATN 238

SEQ ID NO:3229
 SEQUENCE LENGTH:237
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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CLONE:HUMGS03800

SEQUENCE DESCRIPTION:

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GATCCAAAGC CATCCCAGAC CTTCCTTCCT GGCAGATGAC TCTCCCGCT 60
 TCTGCGTCCT GCCTGCCCAT TCATACCAGT TTGAACTGCA ACAGCCTAGC TCCTCACCTG 120
 TGCACCTCCT TCCCAGGTG TGCACGTCTC CAGCCCCGAG CGCGTGTCTT CCTGCTCATC 180
 TGGGTTTCCT GGGCAAATAG TGGCCCTCAA TAAATNTTG CTGAGTGAGA ACATAAA 237

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SEQ ID NO:3230
 SEQUENCE LENGTH:515
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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CLONE:HUMGS03801

SEQUENCE DESCRIPTION:

40

GATCGCCAGA GCCCAGGAGT TTGAGGCTGC AGTGAGCTAT GAGGGTGCCT CTTTGCTCCA 60
 TCCTAGGCAA CAGAGTGAGA CGCTGTTTAA AAAGGAAAAA ATCCTTCNT AGAGCTAGTA 120
 TCCTAAAGCT GCAGAGCTAG CCCATGACCT CATTGGTTTC NTTGTCCTTG GGGTGCTTTT 180
 CCTGAATCTT TGGGGTGAA GGGAGTNTG CTCCAGTCC AGAGGCCTGA TTCCTTTCGG 240
 ACTGGGTCT CAAGACACGA CCAGTTCTC AAGACACGAG TCCCCTTNTT CCTNCCCATT 300
 AAAGGGGTT TNTNAGAAGC AAGANCAGCC CCTTCCCA AGTCACAGCC TGAAGGGAGG 360
 CCCNGAGAN GCTTCCCTCC TTTCCCNCA CCTGNTTCC TTAACCTTNT TTGNCCCTG 420
 NTTTTTTAG GAANCTGGNA GTTCAATTN GTTTTAAANG GGGGATTGGG GGGGAAGGGA 480
 AGNCTTNGGG GGACAAAAA NNTTTTNTT NCAAN 515

45

SEQ ID NO:3231
 SEQUENCE LENGTH:227
 SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS03802

SEQUENCE DESCRIPTION:

5 GATCAGTGTA TGCGAAAAGG TTTTtagGAA GTATGGCAAA AATGTTGTAT TGGCTATGAT 60
GGTGACATGA TATAGTCAGC TGCCTTTTAA GAGGTCTTAT CTGTTcAGTG TTAAGTGATT 120
TAAAAAAATA ATAACCTGTT TTCTGACTAG TTTAAAGATG GATTTGAAAA TGGTTTTGAA 180
TGCAATTAGG TTATGCTATT TGGACAATAA ACTCACCTTG ACCTAAA 227

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SEQ ID NO:3232

SEQUENCE LENGTH:224

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS03803

SEQUENCE DESCRIPTION:

20 GATCACTAGC TAAInCTCAT ATCCATGCCT TTTGTcCTG TTTACAGTCT TAAAAGAGGT 60
AAAAcAGCAA ATATTTTTN AAGGGAActA TAACCTTAGG ATTcCTGAAA ANAATTTCAA 120
AAAAAAATA AAGACACTGT TGCCAATGTG NCCCAAAAct TAAGACCATA CTAATGGCAT 180
ATATTTGTNA CAATNAAAAA TTAANTTTAC TACTTAATCC TAAA 224

25 SEQ ID NO:3233

SEQUENCE LENGTH:310

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03804

SEQUENCE DESCRIPTION:

30 GATCGGTGCT TTGTGTAAAT ACATCTTTAA CATTGGGGTG GAGAGGGGCC TTAAGAAGGA 60
CAGTTCATTG TAGGAAAGCA ATTCTGTACA TGAGTTTAAG CATTCTTGTT GCATTGTCTC 120
TGCAGATTCT ATTTTGTtT ACAATATTAA AATGTATGTN AGCAAAATGG GTGGATTtTC 180
AAATAAAATG CAGCTTCAC AAAAGTTtTG TnATGGTATT CTGGTCTGAG ATGCATTtNC 240
ATTTTNCCTN TCTCTtNTTA TTATCAATAT TGTnATTTT CCCTAATAAA ATATACCCAG 300
35 GTGNATTAAA 310

40 SEQ ID NO:3234

SEQUENCE LENGTH:220

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03805

SEQUENCE DESCRIPTION:

45 GATCAAAATT TTNAGACAAT CTTGGTCTG GATTGGTTAA TGAAATNTN TTGTTTAAGA 60
GGTTCTATTA AAAAAATTTT CTAGTGTATT AGTCATAATT NTTTTGTGG AGTGGGGGTA 120
AACCACACCA TTAAGGGAAT AAAATGTAAT TTGAAAGAGG TGATTATAAG ATTGTTTCA 180
GGCCCCAAAA TATAAATAAA AATTGGTGTG GAATCTCAAA 220

50 SEQ ID NO:3235

SEQUENCE LENGTH:219

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03806

SEQUENCE DESCRIPTION:

GATCGATACA GAGCATCTGC ACTGGGATTG TCCGCCCCGC CTGTCAGGGA GGCCTCGGGG 60
GCTAATNGAG CTGAGGGTAT AGTCGGCCTT GGACCCTCGC TTTTTCCTT TCCTGTACTA 120
TNAAGATAAC TGCCTTATCT CCCCTCAGG ACTGTTTTGG GGATTAAATA GGACGTTTAA 180
ATNACCAACG CTCTTTGAAA TAAACATTTC AAAATTAAA 219

SEQ ID NO:3236

SEQUENCE LENGTH:219

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03807

SEQUENCE DESCRIPTION:

GATCAAAAAA ACTTTTCTTC TTTTGCAAAG AAAGCTTTT GTTTTAAACN GCAACGTACT 60
TTTCCCCCTAC CTTGAAGAGA CATGGTGGTC GCAGCTTCTN ATCTATATGA AAAAGTTTTT 120
GATGTATTGG AATNATTGG GAATGCTTTT AAAACAATT GTAATTATTT CTTTACAAAC 180
CAAAACAGAA CAGAAAGGTG TGGTGTGGA ACATCGAAA 219

SEQ ID NO:3237

SEQUENCE LENGTH:265

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03808

SEQUENCE DESCRIPTION:

GATCTGCATT TTCAGAAGAG GACAATCAAT TGAACTAAG TAGGGGTTTC TTCTTTTGGC 60
AAGACTTGTA CTCTCTCACC TGGCCTGTTT CATTTATTTG TATTATCTGC CTGGTCCCTG 120
AGGCGTCTGG GTCTCTCCTC TCCCTTGCA GTTTGGGTTT GAAGCTGAGG AACTACAAAG 180
TTGATGATTT CTTTTTATC TTTATGCCTG CAATTTTACC TAGCTACCAC TAGGTGGATA 240
GTAAATTAT ACTTATGTTT CCAAA 265

SEQ ID NO:3238

SEQUENCE LENGTH:217

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03809

SEQUENCE DESCRIPTION:

GATCTACTAT AAGGTATTCT ATATTATAT NACTTCAGAG ACGCGTATGT AATAAAGNAC 60
GCCCTCCCTC CAGTGTCCAC ATCCAGTTCA CCCCAGAGGG TCGGGCAGGT TGACATATTT 120
ATTTTGTCT ATTCTGTAGG CTTCCATGTC CAGAATCCTG CTTAAGGTTT TAGGGTACCT 180
TCAGTACTTT TTGCAATAAA AGTATTTCCT ATCCAAA 217

SEQ ID NO:3239

SEQUENCE LENGTH:217

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03810

SEQUENCE DESCRIPTION:

GATCGGTGCT ACCAAGGAAG AGAGCACACA GATAAGACAG AGGGGAGGAG GTGGGCATTT 60
 CCTACATTCC TCCTTGTTN CCGCTGCTGA NATTGACAGTA TTTATTGCAA TNTAAATNTA 120
 TCCTGAAGGT GGGGAGGAAT GTTAAANCTA CCAATNTCCGT GTGTCATCTT GGTNTGTTTT 180
 TNTCCCTGTT TGTAGCAAGA CTCTNATGAT AATNCTN 217

SEQ ID NO:3240

SEQUENCE LENGTH:217

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03811

SEQUENCE DESCRIPTION:

GATCTATATG AAGTGGGAAT ACAGCATATA TCTGGATATT CTTATAGTTA TCTTTTAAAC 60
 ATCTTATTTT TTTCATTAAT TACATATCAA CATTAAATNTT GTATCTNGAA GCAAATNGAT 120
 TTTGTATAAT TAAATGTGTC AAGCATCTGT ATTAATTGAT TNGATGGCAT AAGGTATGAA 180
 ANTANTGTAC TGCCCCATGT ATNACTGTTC CAACCAN 217

SEQ ID NO:3241

SEQUENCE LENGTH:214

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03812

SEQUENCE DESCRIPTION:

GATCATAAGA CCAGGAGTTC AAGACCGGTC TGGCCAACAT GGTGAAGCCT CATTNTACT 60
 AAAAATACAA AATNAGCCAG GTGTGGCGTC ACATGCCTGT AATCCCAGCT ACTCAGGAAG 120
 CTGAGGCAGG AGAATTGTTT GAACCTGGAA GGTGGAGGTT GCAGTGAGCC GAGATTGTGC 180
 CACTGCACTT GACAGAGCGA GACTCTGTCT CAAA 214

SEQ ID NO:3242

SEQUENCE LENGTH:214

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03813

SEQUENCE DESCRIPTION:

GATCATCGAG GACGAGAAGA TGGTGGTGGT GGCNGTGCAG CCGACTGCAG AGCTNGAGGT 60
 GGGCTCGCGG GAGGTCAATTG TGGAGTCCCT GGCCAGGGN GGCCTGGCCT CCCAGCTCCC 120
 CGGCCAGAGA CTGTGTGCAG AGNAGAGCTT CACCGGCCAG GTGTCCTGGA GCCCTCCCTC 180
 ATNATNACAG CTGCTGTCCC CGAGGACTGT GATN 214

SEQ ID NO:3243

SEQUENCE LENGTH:212

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03814

SEQUENCE DESCRIPTION:

GATCTGGGGA GCTNTGACTG AAGGGGCTTG GTCTTCCACT CAGCATCAGC NTGGCAGTCA 60
CCACCCAGT NAGGACCTCG ATGTCCAGCT GCTGTCAGGT CTGATAGTCC TCTGCTAAAA 120
CAACACGATT TACATAAAAA ATCTTACACA TCTGCCACCG GAAATACCAT GCACAGAGTC 180
CTTAAAAAAT AGAGTGCAGT ATTTAAACCA AA 212

SEQ ID NO:3244

SEQUENCE LENGTH:211

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03815

SEQUENCE DESCRIPTION:

GATCTCTGTA GACTAGAGTC TTGCAGCAAC ACAGAATGTA ATATAAGGCA AATGCATCTG 60
GGACTTGACC AAAGTTGTTT TGTTTTGTTC TTTTAACTGA AAGTAACAGA AGGACCTTTC 120
TTAAATGTGA CAGATGGTCC TGCAGTGTGA ACCTGAAGGA CAGTGTAAAA GCTGGGCTCT 180
AGTATATTGA TGATTCTGCG ATAAGTGTGG N 211

SEQ ID NO:3245

SEQUENCE LENGTH:210

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03816

SEQUENCE DESCRIPTION:

GATCTATTTT TGCAGTGGAA TATCTGAGAA TTGCAAACT AGACAAAAGT TTCACAACAG 60
ATTTCTAAGT TAAATCATTT TCATTAAAAAG GAAAAAAGAA AAAAAATTTT GTATGTCAAT 120
AACTTTATAT GANGTATTAA NNTGCATATT TCTATGTNGT AATATANTGN GTCACAAANT 180
AANGCTGTGA CAGTNTCTGT GGTCTACAAA 210

SEQ ID NO:3246

SEQUENCE LENGTH:210

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03817

SEQUENCE DESCRIPTION:

GATCTTTTAC CACTAAAAGA GCATTATTCT CATGTCATAA TGAGAATAAT AATTACATA 60
CTTGGCATAA TAAATGCCTA AAAGACATTT TATTNTCTGA ATCTATTTT TTCTTGCTAT 120
AATGGGGATA TTGTAAATAA TGCATTGTGA TTAATGGTAT TTCTTAAAGC AATCTATGTA 180
ACTGTAAATT AAACCAATCT ACAAACTAAA 210

SEQ ID NO:3247

SEQUENCE LENGTH:210

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS03818

SEQUENCE DESCRIPTION:

5 GATCAGAAGT GGCTAATTTA TTTNATTTCT NATTATTTTA TCCAGAGGGT ACTTTTTTAA 60
 TGGATATTTG TAAATCTNCC ACTTAACCAC TGAAAAATAAT NTTNTTTTAA TCCCACCCTT 120
 CCATCCATAC CTCTGCCTCC CCAAAAAGCT CCTATNAATT TNCTTATCCC CCTCATGTAG 180
 CTAGTTGAAT GTGAATAAAT AACATGGAAA 210

10 SEQ ID NO:3248

SEQUENCE LENGTH:206

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03819

15 SEQUENCE DESCRIPTION:

GATCTCCATT CTTTGCCATG AGGGCCAACA CATGAGACCC CACCTCCCTC CCTGCCTGCC 60
 AGCCCTAGAC TTGTTGGAGC ATAGAGCCCT TCCTCCCCAG GCCTAAGTAT GTGGAGCTCT 120
 GCTTTGGCAC TGCCCCGCAG AGGCCACGCC TATTTATTCT GTTCTNTTG TTTTGTTTTT 180
 20 AACAACTATA CTTTGCACAC ATGAAA 206

SEQ ID NO:3249

SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

25 TOPOLOGY:linear

CLONE:HUMGS03820

SEQUENCE DESCRIPTION:

30 GATCCCCAGA GTTGGTCCAA GGAGGGAGAG TGGGTTCTCA ATACGGTACC AAAGATATAA 60
 TCACCTAGGN TTACAAATAT TTNAGGACT CACGTAACT CACATTTATA CAGCAGAAAT 120
 GCTATTTTGT ATGCTGTAA GTTTTCTAT CTGTGTACTT TTTTAAAGG GAAAGATTTT 180
 AATATTAANC CTGGTGCTTC TCACTCAA 209

35 SEQ ID NO:3250

SEQUENCE LENGTH:335

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03821

40 SEQUENCE DESCRIPTION:

GATCTGTGTG GTCCCCGACG TAACATCTGG CGAGACCCTG CCCTCTGCTG TTACCTGAGT 60
 CCTGGGGATG AACAGGTCAA CTGCTTCAAC ATCAATTATC TGAGGAACGT GGCTCTAGTG 120
 TCTGGAGACA CTGAGAACGC CAAGGGCCAG GGGGAGCNGG GCTCAACTGG AGGAACAAAT 180
 ATCAGCTCCA CCTCTGAGCC CAAGGAAGAN TGAGTCACCC CAGAGCCCTA GAGGGTCAGA 240
 45 TGGGGGGAAC CCACCCTGCC CCACCATCT GANCACTCAT TACACTAAAC AACTTTTTGG 300
 GNAANTNTNA TNTATGATGN GNNGNGNGTG GGGAN 335

50 SEQ ID NO:3251

SEQUENCE LENGTH:207

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS03822

SEQUENCE DESCRIPTION:

5 GATCTAATTC TNCACCTCCTG CTCCAAGGGC TGGGCTGTGG GTGGGATACT GGGATTTTGG 60
 GCCACTGGAT TTTCCTTAAA TTGTCCCCC CTTTACTCTC CCTCTATTTT NCTCTCCTTA 120
 GACTCCCTCA GACCTGTAAC CAGCTTTGTG TCTTTTNCCT TNTNCTCTCT TTAAACCAT 180
 GCATTATAAC TTGAAAGCA AAACAAA 207

10

SEQ ID NO:3252

SEQUENCE LENGTH:201

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS03823

SEQUENCE DESCRIPTION:

20 GATCTCATTT NAATGATTTA TAGGTAAATA CTAATCAGAC ATTATTAAAA GCAAAACAGG 60
 AAAAAGGTAA ACTTCTTAAA TTTAGTTACC TATAAAAATT GTCAATNTTN ATTCTTTAAA 120
 AACACATGGA CTTACTATAA AAGCCTTTTT GTACTAGTGA AAAGAATCTT CAGCTATATA 180
 GAAATAAAGT TATACTTTAA A 201

20

SEQ ID NO:3253

SEQUENCE LENGTH:201

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25

CLONE:HUMGS03824

SEQUENCE DESCRIPTION:

30 GATCCCTAAA AGACAAAAGA GTCTTGGAAG GACTGTCTGG CTTCGTCTTG AACGTTGCGC 60
 CCATCACCAG TGTGAGTCCG TGGGGAAGTC TTCCTCAAGT GGGGTTCACT CTGTAATTTT 120
 CCTGTCTGTT CTTAGCNNG TTCTGAGTTA TTTTGGATTT TTTCTTTAG CCAAATAAAG 180
 GCAGTGTGGT TTTACCTGAA A 201

35

SEQ ID NO:3254

SEQUENCE LENGTH:200

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS03825

SEQUENCE DESCRIPTION:

45 GATCCTAATG GTGCTGCCCT ATTTATACCT GGGTCTGCAT TAAAAGGGAA AGCCCCCCT 60
 GTTGTAGATT TCATCTGCTT CCTCCTTAGG GNAGGCTGGG ATATGATGAG AGATTCCAGC 120
 CCAAGCCCGG CCCCCACCG CCAGGCCATA GGGCATANTT TGCATCTCAA ATCTGAGGAA 180
 TAAACTGATG ACCTGTGAAA 200

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SEQ ID NO:3255

SEQUENCE LENGTH:391

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS03826

SEQUENCE DESCRIPTION:

5 GATCAAGCAT TTGCGTTTGG ATGGCAATCG CATCTCAGAA ACCAGTCTTC CACCGGATAT 60
 GTATGAATGT CTACGTGTTG CTAACGAAGT CACTCTTAAT TAATATCTGT ATCCTGGAAC 120
 AATATTTTAT GGTATGTTT TTCTGTGTGT CAGTTTTCAT AGTATCCATA TTTTATTACT 180
 GTTTATTACT TCCATGAATT TAAAAATCTG AGGGAAATGT TTTGTAAACA TTTATTTTIT 240
 TTAAGAAAAA GATGAAAGGC AGGCCTATTT CATCACAAGA NCACACACAT ATACACGGTT 300
 10 AGACATCAAA CTCAATGCTT TATTGTNAA TTTAGTGGTT TTNTATTCT ACTGTCAAAT 360
 GATGTGCAAA ACCTTTTNC CGGGTTGCAT N 391

SEQ ID NO:3256

SEQUENCE LENGTH:194

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03827

SEQUENCE DESCRIPTION:

20 GATCTTTAAT TTGNATGGTG ATGAATGTCT TAGTCATGAA GAGTTTCTAT GGGGTGTNAA 60
 AAAACAGAAT GCATCGAGGT TNATGGGTAC CACAACATCA GAGTATACAA GAATACTGGA 120
 AGTGTGTGAA GAAAGAAAGC ATTAAGGAG TAAANGANGT CTGGAAACAN GCTGGAAANG 180
 GTCTTTTNA ATNN 194

SEQ ID NO:3257

SEQUENCE LENGTH:190

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03828

SEQUENCE DESCRIPTION:

30 GATCTAGTAG GTTCTATTT TTCTTTCTC TTTACAATGC ACATAATACT TTCCTGTATT 60
 TATATCATAA CGTGATAGT GTAAAAATNG AATNACTTTT TTTGTGAATG AAAATCTAAA 120
 35 ATCTTTGTAA CTTTTATAT CTGCTTTTGT TTCACCAAAG AAACCTAAAA TCCTTCTTTT 180
 ACTACACAAA 190

SEQ ID NO:3258

SEQUENCE LENGTH:190

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03829

SEQUENCE DESCRIPTION:

45 GATCCCCTTT TNTNCTGGAG CTTCCTGCC TCCCCTGCCT CTTCCAGCC CTTGTAATCC 60
 TCCTTACAG GCCAGCCAGA TACCTGTNTG GCCTNTGGGC CCATTTNTT CCCTGTCTGT 120
 CCCCACCCA CAAGAACCAG GTTCTNTAA TAAATCTCT CCCTTCTTA GCCAGGACTT 180
 AGCCCGCAAA 190

SEQ ID NO:3259

SEQUENCE LENGTH:189

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03830

SEQUENCE DESCRIPTION:

GATCTNAGAG CCTGCCCCAAC AGCAGGGAAG CCAAGCACCC ATTCATCCCC CTGCCCCCAT 60
CTAACTGCGT ANTGANAAGG GGAACAGTGC CATGTACCAC ACAGATGTTT CTGTCTCCTC 120
GCATGGGCAT AGGGACCCAT CATTNATGAC TGATGAAACC ATGTAATAAA GCATCTCTGG 180
GGAGGGAAA 189

SEQ ID NO:3260

SEQUENCE LENGTH:188

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03831

SEQUENCE DESCRIPTION:

GATCCCCCTC CTATCAATCA CCTGATAGCA ACAGGGACAG CTGCCAATAC CCTGCTCTTT 60
ACTCAATGGT ACCCAGGGAG GGAGCATGGG AAGAGGGTGA GCTGAGGGCT GGAGGAGGGC 120
AACAGCCACT GGGTGAGCTG TTCACGGTCT TATACTATTG TTTGTNATTA AAAGTGCTTC 180
AACCCTAAA 188

SEQ ID NO:3261

SEQUENCE LENGTH:184

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03832

SEQUENCE DESCRIPTION:

GATCAACAAG GCCACGCCCT ACAACTACCC AGTGCCCGTC CGTGATGATG GGAACATGCC 60
CGACGTGCCC AGCCACCCCC AGGACCTCA GGGCCCCAGC CTGGAGTGGC TGAAGAAACT 120
GTGAGCACCT CCACTGACAG AGGCGGCCCC TCCCACGGNT CCCAATAAAA ATGTGAAAAC 180
CAAA 184

SEQ ID NO:3262

SEQUENCE LENGTH:184

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03833

SEQUENCE DESCRIPTION:

GATCCACCAA TGTTTCAAAT AGGACTATAA CTTATTCAAA GGCCAATNAT ACTTCGCATA 60
ATTCAATTTT AATATTATTC ACATTTCATG TCACAAATTT AGTAAGTTAC ATGTGTTATG 120
TGATGTTTTG TTTTGATAGA TTATATCTTA CTCCTAAATA AAANGTCAAG ATTTTGTAG 180
CAAA 184

SEQ ID NO:3263

SEQUENCE LENGTH:181

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03835

SEQUENCE DESCRIPTION:

5 GATCTCTCTG TGTGGAATGC CTTGGTGAGA GAGATGCTTA TAATNACTAT NATNATTCT 60
AACCAAGCTT CTATNAATNT AATTCTAAT AATACACTAT CTTGATTGTA CTCTCCAGAA 120
AATTTTCTG TCAGTGAAAA TAAAAGAAAA ATTAAAGTAA AGCTAAGGAA CTGTCTATAA 180
A 181

10 SEQ ID NO:3264

SEQUENCE LENGTH:180

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15 CLONE:HUMGS03836

SEQUENCE DESCRIPTION:

GATCCCTGGA CCATCTGCAT CCAGAGGACC GTCCGTAACG GCCGGGGGTC CAGGCGGACC 60
TTGTGGTGAC CCGGCTCGGG CNTNTCTCG GTTTCNTTGC CTCACCCGCG GAGAGCGCTG 120
20 AACCTGGACA AGCAGCGGCT GGNAAGNACA GGTCCAATAA ACGCCCTCTG CGCCAGAAA 180

SEQ ID NO:3265

SEQUENCE LENGTH:227

SEQUENCE TYPE:nucleic acid

25 TOPOLOGY:linear

CLONE:HUMGS03837

SEQUENCE DESCRIPTION:

30 GATCTAGTTC AGAAGGAAGC AAAATCCCTT AATCTATGTG CACCGTTGGG ACCAATGCCT 60
TAATTAAGA ATTTAAAAA GTTGTAATAG AGAATATTTT TGGCATTCTT CTAATGTTGT 120
GTGTTTTTTT TTNGTGTGTN CTGGAGGGAG GGGATTTAAT TTNAATTNA AAATGTTTAG 180
GAAATTTNTN CAAGGAANCT TTTTAATAAN GTATATNGAA AGNTAAA 227

35 SEQ ID NO:3266

SEQUENCE LENGTH:171

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS03838

SEQUENCE DESCRIPTION:

GATCACTTCT CTTGGCTTC CTTCTTTTCT GTGCTTGCAT CAGTGTGGAC TCCTAGAACG 60
TGCGACCTGC CTCAAGAAAA TGCAGTTTTT AAAACAGAC TCAGCATTCA GCCTCCAATG 120
AATAAGACAT CTTCCAAGCA TATAACAAT TGCTTTGGTT TCCTTTTGAA A 171

45 SEQ ID NO:3267

SEQUENCE LENGTH:338

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50 CLONE:HUMGS03839

SEQUENCE DESCRIPTION:

5 GATCACTTTA TTTGCTAGGG AGGGAAGTCC TAGGGTGGTT TCAGTTTCTC CCAGACATAC 60
 CTAATTTTA ACATCAATCC TTTTAAAGAA AATCTGTATT TCAAAGAATC TTTCTCTGCA 120
 GTAAATCTCG CAGGGGAATT TGCATAATTA CACTTGAAAG TTGTTATTGT TAACCTTTTC 180
 GGCAGCTTTT AATAGGAAAG TTAACGTTT TAAACATGGT AGTACTGGAA ATTTTNCAAG 240
 ACTTTTACCT AGCACTTAAN TATGTATAAN TGTACATAAN GACAANCTAG TAAGCNTGGC 300
 CTGGGGANAT GGTCAGNCCT TGTNTTGTGT TTTTGGCN 338

10 SEQ ID NO:3268
 SEQUENCE LENGTH:170
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03840
 15 SEQUENCE DESCRIPTION:
 GATCATAGGA GAAAACCAT TCAATGACA AGAGCACCTC AAAGGCAGCA GCCTCAAGGA 60
 GCAGCCATGG CCCAGACTT GTCGCACGGA TGCAGAAAAC TTAATGGAGG AGGCTGAGGT 120
 CAGAAATGGGA AGAGTTTTTA AAAAATAAAA AGGGGAGCTA ATATGTGAAA 170

20 SEQ ID NO:3269
 SEQUENCE LENGTH:168
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS03841
 SEQUENCE DESCRIPTION:
 GATCAAGGGC AAAAATGGT CATTAAGTNA TCTAANATTA AATNATTTAG CCACTAAGTA 60
 ATTTNTTTAC TCTNACTTTA AACTCACCAA AGAAGATTCT TTTAAAGAAA TTATGAAAAA 120
 30 TGTACAATTT AACATTTTAA ATAANTAGTG ACAGANGTTG TTTATAAA 168

35 SEQ ID NO:3270
 SEQUENCE LENGTH:167
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03842
 SEQUENCE DESCRIPTION:
 40 GATCCTCTCG CCCAGCATT CCAAAGTGCT GGGATTACAG GTGTGAGCNA CTGCCTGGCC 60
 TGGCCGTAGG TTTGTAAGT TTTTCATAGAA GAGCCCTGGA GAAGACAGTA GAATNAGCCT 120
 ATCTAGTTTA AAAAATAAAG AAGCACGTTG ATTCACCAC CGCCAAA 167

45 SEQ ID NO:3271
 SEQUENCE LENGTH:167
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS03843
 SEQUENCE DESCRIPTION:
 50 GATCAGCTTT GTTTTCCCA GAGTTCATGC AAATAGAATC TGGCTTCTNT AAGTNAGCAT 60
 CATGGACTTG GTTNAAATC GCCCGTNTTG CTGAGTGTAT CTTAGCTTG TCCCTTTTAA 120

55

CTGACGAGTA GTATTCCACA GTNTGGATGC ACTGTATTNN NTTTATN

167

SEQ ID NO:3272

SEQUENCE LENGTH:166

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03844

SEQUENCE DESCRIPTION:

GATCAGAGCA TTGTGCAATA CAGTTTCATT AACTCCTTCC CCCGCTCCCC CAAAAATTTG 60
 AATTTTTTTT TCAACACTCT TACACCTGTT ATGGAAAATG TCAACCTTTG TAAGAAAACC 120
 ANANTAAAN TTGAAAANTA AAAACCNTAA ACATTGCAC CAGAAA 166

SEQ ID NO:3273

SEQUENCE LENGTH:165

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03845

SEQUENCE DESCRIPTION:

GATCTNTTTT TTCCCTTCT TGTATCATCC CTTTGGGTTT TTCGGTTTGC TTTGGTTTTT 60
 AATTTTNCCT TGTTTTNCCT ATAAATCCTG TTTTAATCTT ATAAGGGAAA ATNCATTTTN 120
 TTCAACTGTN CTAGTTAATA ATGAGAACTC AATTNCTGGA AATNN 165

SEQ ID NO:3274

SEQUENCE LENGTH:163

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03846

SEQUENCE DESCRIPTION:

GATCTCAGGA ATNACATTTT CCAACAGACC AAAAAATGTT TTCATGTAGC AGCAATGCAG 60
 ATTTGGTGAA TATTAAATAT ATATTAAAGT ATGTATTTCA CTTTATNACT GACAATNAAA 120
 AAATATTGTT TGGCCAAATA GTAAACACCC TTTTGAAACC AAA 163

SEQ ID NO:3275

SEQUENCE LENGTH:163

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03847

SEQUENCE DESCRIPTION:

GATCCCTTNG TTGCTTAAT AAATTATAAA ATAATGGCTT GGAAAAGCAG GCTAGTCTAA 60
 CCATGGTGCT ATNATNAGGC TTGCTTGTTA CACACACAGG TCTAAGCCTA GTATGTCAAT 120
 AAAGCAAATA CTTACTGTTT TGTTCCTATT AATGATCCCA AAA 163

SEQ ID NO:3276

SEQUENCE LENGTH:164

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03848

SEQUENCE DESCRIPTION:

5 GATCTGTTCT TGGTATTNN TTTTGTITG TTTTGGTTT TAAATGTAAT CACCCATTGG 60
 TCAGGCCCAG GACTGGTCAC CATGAGCTCT GCTAGCCACG GCCCCAACGA TGCTTCCGGC 120
 TCTCATGGAT TCCACAGCAA ATAAACTGT GGTGACAACA GAAA 164

10 SEQ ID NO:3277

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03849

15 SEQUENCE DESCRIPTION:

GATCTGGGGT CCCTAAGTCC CTCTCTTTAA AGAACTTCTG CGGGTCAGAC TCTGAAGCCG 60
 AGTTGCTGTG GGCCTGCCCG GAAGCAGAGC GCCACACTCG CTGCTTAAGC TCCCCCAGCT 120
 CTTTCAGAA AACATTAAAC TCAGAATTGT GTTTTCAGCA AA 162

20 SEQ ID NO:3278

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS03850

SEQUENCE DESCRIPTION:

30 GATCCTAGGA ACTCCTATNT TCAGAAAAGA ATTTTNTTCC TACTATATAA TTACAGTATT 60
 TAGCTGTCAA TTTTAAGATG AATTGGTAG AGCCTTATAG TAAAGNATGT ATCTGGTCA 120
 CACACAAAGC TTGGAAAAG TAAAGATGT CTAAACCATA AA 162

SEQ ID NO:3279

SEQUENCE LENGTH:160

SEQUENCE TYPE:nucleic acid

35 TOPOLOGY:linear

CLONE:HUMGS03851

SEQUENCE DESCRIPTION:

40 GATCAAGAAG TAGCCGAGGT TGATAAAAAC ATAGAACTTT TGAAAAAGAA GGATGAAGAA 60
 CTCAGTTCTG CTCTGAAAAA AATGGAAAAT CAGTCTGAAA ACAATGATAT CGATGAAGTT 120
 ATCATTCCA CAGCTGCTCA ATAAAGTACA AGAGCTTAAA 160

SEQ ID NO:3280

45 SEQUENCE LENGTH:177

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03852

SEQUENCE DESCRIPTION:

50 GATCGTGGGT CAGGGACACC GAGAGAGTGA GGTCACCTCC ACTTCAAACC TTCAGTGAGG 60
 GGGTGGGATG GAGAGAATGC TGAATCTTT TTTNACGGG ATGGGGTTT CNTCTTGTA 120

55

ATTATNNCTT TAGTTTAATT AACCTTTTGG TTGTTTGTNC AATATTATAT ATNNNAN 177

SEQ ID NO:3281

SEQUENCE LENGTH:232

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03853

SEQUENCE DESCRIPTION:

GATCAGGACT ATAATATTGT ACAGTTATTA TAGGGCTTTT GGGGAAGGGG AGGATAGCGA 60
 GAAGATGCTC TGGGGGTTTT GTTTTGCCTT TTCCTTCAGG GTTTTATTTT TGA CTGTTTT 120
 GTTTTCTNGT NGGCCATTTC TGTATTGCTG GCATCTGTGC TAAGCTTTAC AGTGGCAAAA 180
 ATAATGACAT GTAGCAAAGA TTTTCAAACA AAATATTTTT NCCTTTTGTA AA 232

SEQ ID NO:3282

SEQUENCE LENGTH:158

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03854

SEQUENCE DESCRIPTION:

GATCGATGGT GCGGCTTTCT CCTGTGCCCA CCCGTCTTCA ATCTCTGTTT TGCTCCCAGA 60
 TGCCTTCTAG ATTCAGTGTC TTTTGATTCT TGATTTTCAA GCTTTCAAAT CCTCCCTACT 120
 TCCAAGAAAA ATAATTAAAA AAAAACTTC ATTCTAAA 158

SEQ ID NO:3283

SEQUENCE LENGTH:158

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03855

SEQUENCE DESCRIPTION:

GATCTCATCA CAAGATGACC AAAAGAGTTT GAACTGTGTG TGCTATTTAG AAGATTTAAC 60
 TTTNATGTAT CTATAGATAC CACAGCTGTT GCTTCTAATA AATTACCTA CCTTTNAACT 120
 GAAAGTTTAA TAAAGCCAAA TCAATTGAA ATACCAAA 158

SEQ ID NO:3284

SEQUENCE LENGTH:390

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03856

SEQUENCE DESCRIPTION:

GATCTGCCCTC ACGTGCCTG TGGTGGCCGT GTGCTACGGC TCCTTCTACA ATCTCCTCAC 60
 CCGAACCTTC CACATCGAGG AGCCCCGCAC AGGTGGCCTG GCCAAGCGGC TGGCCAACCT 120
 TATCCGGCGC GCCCGAGGTG TCCCCCACT CTNATTCTNG CCCTTTCCAG CAGCTGCAGC 180
 TGCCGTTTCT NTCTGGGGAG GGGAGCCCAA GGGCTGTTTC TGCCACTTGC TCTCCTCAGA 240
 GTTGGCTTTT GAACCAAAGT GCCCTGGACC AGGTCAGGGC CTACAGCTGT GTTGTCAGT 300
 ACAGGAGCCA CGAGCCAAAT GTGGCATTG AATTGAATT AACTTTAGAA ATTCATTGTC 360

TCAACTTGTT AGTGGCCACC TCTTATATTN

390

SEQ ID NO:3285

SEQUENCE LENGTH:156

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03857

SEQUENCE DESCRIPTION:

GATCTCAACA CCTATGCCTC CACGTAAATT ATTTTTC A GCCTTATTC CCTCAAAATT 60
 GTAGAGTCCT AATCTTCTC TATCTTGTG TGTGAGACCT TGGATAAGTC TCCCTTCCAC 120
 CTTTCTCTAT TACTTAAAT GGTGAATTG CATAAA 156

SEQ ID NO:3286

SEQUENCE LENGTH:155

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03859

SEQUENCE DESCRIPTION:

GATCAGGTGA TTTGTAAAT TGTATTATC TGTACATGTA TGGGCTTTTA ATTCCCACCA 60
 AGAAAGAGAG AAATNATCTT TTAGTTAAA ACCAAATTC ACTGTTCAA NTATCTTCCA 120
 ACTTATTAT TGGGTTGTCA CTCAATTGCC CTGTN 155

SEQ ID NO:3287

SEQUENCE LENGTH:137

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03860

SEQUENCE DESCRIPTION:

GATCTTGCAA CTCCATTTCG GAAGACACCG AGGAAGAGGA GGAAGATGAA GACCAGGACT 60
 ACAGCTTCC TATATCTCCT ATTCTAGAGT GGTAAACTCT CTNTAAGINT TCAGTGTGTA 120
 CATAGCCTTT GTGCAA 137

SEQ ID NO:3288

SEQUENCE LENGTH:152

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03861

SEQUENCE DESCRIPTION:

GATCAGTGGG CACAGTTCTT CAGCTACATT GAGACCCTGA AATAACAAT NATATTCTNA 60
 CTCGACATCT TGTCCCAAT CCTTCCAAA ATATTGATGG TGATTGTGC TACCATTAC 120
 TCGTTTATTT AATAAGACA TTCAATCCCA AA 152

SEQ ID NO:3289

SEQUENCE LENGTH:152

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03862

SEQUENCE DESCRIPTION:

5 GATCAGNATT GTACGTATTC AAGGTGTAAA ATNTGATAAT TTGTCGTACA CGTACATTGT 60
GCAATAACAG TCACAATNAA TTCCTCAGCG CACCCATCAC CACGAATACG ATACATTAGA 120
TATTCTGAAC TTGCTCATCT TAGGACTTCA AA 152

10 SEQ ID NO:3290

SEQUENCE LENGTH:153

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03863

15 SEQUENCE DESCRIPTION:
GATCATAATA GTGACCAAAA TATACATGCA GACTTGTTTT TTATTATTGT TGTITAAGCA 60
TAATTTAAGA AAAAAAATTT TTACCTGGTG AACTTGCTAT CTGCTCTGTT TCTAGTTAAA 120
ANATAATANA TTTTATCTNC CCTGTGCTGT AAA 153

20 SEQ ID NO:3291

SEQUENCE LENGTH:144

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS03864
SEQUENCE DESCRIPTION:
GATCTTCTTT CTTTTTACAG GAACAATTGG CTTCTTTGCA TGCTTTTGGT TTGTNACCAA 60
AATATACAGT GTGGTGAAGG TTGACTGAAG AAGTCCAGTG TGTCCAGTTA AACAGAAAT 120
30 AAATTAAACT CTTATCAAC AAAA 144

35 SEQ ID NO:3292

SEQUENCE LENGTH:163

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03865

40 SEQUENCE DESCRIPTION:
GATCATGGTG AACTTACCAA AGCAAACAAT GCCTGTAAGA TGGTCCTGCA GCAGCCAACC 60
AGTGAACTCT TTTGGTGACA TCCTGTTCTT GTTGATAAC TTTATATTCC TATAAATCCA 120
TTAAGGCCCC AATAAAGTTT GTCTCTAAGC GCTGTGTTAG AAA 163

45 SEQ ID NO:3293

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03866

50 SEQUENCE DESCRIPTION:
GATCCAAAAT TAGAGCTCAT CAGANTTGTC ATTGAAAGTG TTAACAAAAG TAATATCAAA 60
TGACATTGA AAAATATCCT TGTAATAATG CTATATTAAT AGGTATAAGG NTTTTCTTA 120

55

TTAATCTAAT AAAATNCCTT AATAGGAAA

149

SEQ ID NO:3294

SEQUENCE LENGTH:157

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03867

SEQUENCE DESCRIPTION:

GATCAGGACA CTTAGCAAAT GTAAAAATAA AATCTAACTC TCATTGACA AGCAGAGAAA 60
 GAAAAGTTAA ATACCAGATA AGCTTTTGAT TTTGTATTG TTTGCATCCC CTTGCCCTCA 120
 ATAANTAAAG TTCTTTTSTA GTTCCAAATT TNAGAAA 157

SEQ ID NO:3295

SEQUENCE LENGTH:148

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03868

SEQUENCE DESCRIPTION:

GATCCGNTAG GAGTAGTAAA TGNGAGACAC AATNGCTTGA TTATACCTCN TATNTGGTTT 60
 AGCTTCAGTA TTTAAACAAG GAAATAAACT TGAAAATTAT TTGTCATCAT AAAAATGAAA 120
 CAAANTAAAA TATTTATTGC CAGGNAAA 148

SEQ ID NO:3296

SEQUENCE LENGTH:332

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03869

SEQUENCE DESCRIPTION:

GATCTCAGAG GCTCAGAGAC TGCAAGCTGC TTGCCCAAGT CACACAGCTA GTGAAGNNCA 60
 GAGCAGTTTC ATCTGGTTGT NACTCTAAGC TCAGTGCTCT CTCCACTACC CCACACCAGC 120
 CTTGGTGCCA CCAAAGTGC TCCCCAAAAG GAAGGAGAAT GGGATTTTNN TTTTGAGGCA 180
 TGCACATCTG GAATTAAGGT CAAACTAATT CTCACATCCC TCTAAAAGTA AACCTACTGG 240
 TTAGGAGCAG CAGTGTCTC ACAGTGTGGG GTCAGCCGTC CTNCTTNATN NNNGGCCAAT 300
 GGNATTGAC ACGTGTNCNN NGTTTGGGCA GN 332

SEQ ID NO:3297

SEQUENCE LENGTH:147

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03870

SEQUENCE DESCRIPTION:

GATCTNCTGT CCTCCTTCA CTACATACCA ACAACCCTCT GGCATTAAAC TTCCAGTGAT 60
 AGTGCTATNA ACTTTGTGTC CTCAGGTCAA CAAGGGACCT CAGTAATNG TTCTNTACAT 120
 AAGTATATAT ATGGGTATTA NTNNGTN 147

SEQ ID NO:3298

SEQUENCE LENGTH:355

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03871

SEQUENCE DESCRIPTION:

GATCGCCCTC TACATGGCTT CGCAGCCCAA AAACAAATNA GTTAGGCTGC AGAGGACTGG 60
 TTTGTTTTTT GGCATAAACC CTTTGAAGTT CCTTTTTCAT TGTAAATTA AAATTTTTTT 120
 NTTNACTTGG ATGGCTTAAC ATTTTNCNA GAAAANTNGG AAGNTATGAA GATGNTGTTT 180
 TGGTTTGGT ATGAAANGCA TATGGCTTGN CAGAGCTCAT TCGACAGTTA AGGCCATTGT 240
 TTAAGAANC GGTGCTTTGC TCTGTGTTG TNCTCCTGAT TTCCCTGGAG GTTCTGGATG 300
 AGGGCTGANC ACAGGCTTNG TTANTGTNCA GTCTGTGCTG GGGGNCCTCA GGGGN 355

SEQ ID NO:3299

SEQUENCE LENGTH:147

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03872

SEQUENCE DESCRIPTION:

GATCACCAGG GTCAGTTTNT TTAATAATGG TTTCCAACGT GCCTAATACA TTAAGTAAGA 60
 NTGGNTGATA ACATGACCAG ACAGACATAA AGACCCTGTT GGGGAATNACA TTGAACCTCTC 120
 AAAGTCAAGA TTTNTTACAC AANTNTN 147

SEQ ID NO:3300

SEQUENCE LENGTH:147

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03873

SEQUENCE DESCRIPTION:

GATCCGCTAC TAAAAGTAAA AATAACCGGT TTGTAAAACA TTAAGAGAAA AANTAGGATA 60
 TTTAATACAT GTGGTGAGTG GAGANCAGGG TAACTTTAAN TNAAGTTTA AGGCAAATTG 120
 TAAGCNCCAC AAGANATATC ANATTTN 147

SEQ ID NO:3301

SEQUENCE LENGTH:147

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03874

SEQUENCE DESCRIPTION:

GATCTAAAAA AATTAAAAAG AAATATGAAT GAAAGNAAAA AAAATGCNAA AATNAGCAGT 60
 TTCCTGGAGG AGCAGTTCCA GCAGGGCAAG CTTNTTGCTT GCNTCGTTTC AAGGCCGGGA 120
 CANTTTGGCC GAGCAGATGG CTATNTN 147

SEQ ID NO:3302

SEQUENCE LENGTH:147

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03875

SEQUENCE DESCRIPTION:

GATCATNTTA TTTTACAATC ATTTATAATG AATNAATGTT NCAGTTAGCT TAAAAAGGTA 60
TACGGTGCTA ATNAGTAAAA TATTGAAGGC AATATTTTAC TGCTAGCTTG CAAAGTTATG 120
AGAGTTTAAA AAATAAAATA TATGAAA 147

SEQ ID NO:3303

SEQUENCE LENGTH:147

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03876

SEQUENCE DESCRIPTION:

GATCTAGGGT CCTGGGTNTC TTGCATTTAT ATGTCAGAAA AGGGGCGATA TGCTGCTGAG 60
GGGTGAGTGC ATATAANTNT GGCCCTGAGG ACCAGGGCTG GCAGATNTTG TCTACCTGCT 120
GAAGAATAAA ANATTCTTT TGGTAAA 147

SEQ ID NO:3304

SEQUENCE LENGTH:150

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03877

SEQUENCE DESCRIPTION:

GATCTNACCC CCAGCATGAT TGTATTTCTT TCCCCTCCAG TCAAACCGTA ATACAGTTTC 60
CAGAAAAATC GACAGTCTGC AATGCCAAAA GGGTAAAAAT CTGTATTCA CAGTTGTATA 120
GAATAAAGGC TTAGTTAAA ATATTTCAAA 150

SEQ ID NO:3305

SEQUENCE LENGTH:146

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03878

SEQUENCE DESCRIPTION:

GATCTAAAAA TAACTGTAAT TATTTAAATG ACTAANAGGA AAGTACATTT TTAAAAATNC 60
TGAAAAATTGC CTTNNTGTGT TTATNCAAAAC TGAAAAGCTG AGACCAAGAG CAAGGAAGGT 120
AAAANGTTAA CAGGCAAACA TTTNCN 146

SEQ ID NO:3306

SEQUENCE LENGTH:143

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03879

SEQUENCE DESCRIPTION:

GATCCTCACC AACCTAAGCA AGAGGAAGTG CCCCTCTCAA CCTGTGCGGG NTGCTGCGTC 60

CCAGGACTGA GACGCAGGCC AGCCCCGGCC CCTAGCCCTC AGGCCTTCTT TTTATCCAA 120
ATAAATATTT CTTAATAAGG AAA 143

5 SEQ ID NO:3307
SEQUENCE LENGTH:143
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS03880
SEQUENCE DESCRIPTION:
GATCAACAAG AGCACTGTAC TCCTGGCAAT NATTACATAT GTNAGAACAT GGATTTTGCA 60
CTGTAGACAA CATTTAACAC CAGTCTATGG GGTACTGCAT TGCTTTTNAT AAAGTTCAAA 120
ATAAAGATTT ATTTTCAAAC AAA 143

15 SEQ ID NO:3308
SEQUENCE LENGTH:142
SEQUENCE TYPE:nucleic acid
20 TOPOLOGY:linear
CLONE:HUMGS03881
SEQUENCE DESCRIPTION:
GATCCCTTTA CTGGAGCCCA GTATGTGCTG TGTGAGTTAG AAGTCATTCT TGCTGAGAAG 60
GTGAATAGGT AGGGATTTC CTTGTTTTGT AAGTCTACAA TTTGCCAAGA GTAAATAACA 120
25 CTGGACCAGC TGAAAAAGTA AA 142

30 SEQ ID NO:3309
SEQUENCE LENGTH:142
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03882
SEQUENCE DESCRIPTION:
35 GATCTGCACA TTTAATCGTG GCTGTTTCTG TATAGCCTAT ACTGCATTAG CCNAAGANAT 60
TGTTGCTTTG TAACTTTTGG CACTATTGTT TTGGCTGGAT TTGTATTACA CACAGTTTAA 120
AAAAAAACAA TTCCACACTA AA 142

40 SEQ ID NO:3310
SEQUENCE LENGTH:141
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03883
45 SEQUENCE DESCRIPTION:
GATCCCTAAG CCCCCAGCT GTAAATAGGC TGTGGCCAGT GCCTGGTCAT NAGAAGAGNG 60
AGGAGGAGCC CAGGCGTCTG TTTATGTATT TATTTATTTA TTTATTATAC CTATTAATAA 120
AAAAGGTGCT CAGCCTCCAA A 141

50 SEQ ID NO:3311
SEQUENCE LENGTH:139

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03884

SEQUENCE DESCRIPTION:

GATCTTGGCC TTCGCAGTGC CCACTGATGG CATTACTCTG CACTATAGCC ATTTNCCCCA 60
 ACTTAAGTTT AGAAATNACA AGTTTCAGTA ATAGCTGAAC CTGTTCAAAA TGTTAATAAA 120
 GGTTTCGTTG CATGGTAAA 139

SEQ ID NO:3312

SEQUENCE LENGTH:138

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03885

SEQUENCE DESCRIPTION:

GATCTGGAAG ACAAGTAACA TCTCCTTTT NTTGGTGCTC GCCTGCCGTG CTCTAGGTGC 60
 TTTTAGAGAT GCTGGTCTGT GTGCTAGGGA AGCGATGAAC CATACTGTTA GTCTATTAAA 120
 CATAACTCAA CCTGGAAA 138

SEQ ID NO:3313

SEQUENCE LENGTH:138

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03886

SEQUENCE DESCRIPTION:

GATCTATCTC TGTGTCCAAG TCTCCTTTT TTATAAGGAA ACCAGTCATA ATGGACCCAC 60
 CTGAATNACC TCATTTTAAC TTGATTACCT CTGTAAAAAA TGTATTCCA AATAAAGTGA 120
 CCTTATGAGG TATTGAAA 138

SEQ ID NO:3314

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03887

SEQUENCE DESCRIPTION:

GATCAACAAA TCTCCTAGGC CTNTNACCAC ATACATTAC ACCNACTACC NCAACTATCC 60
 ATAAATCTAA GTATAGCCAT TCCACTATNA GCTGGAGCCG TAATTACAGG CTTCCGACAC 120
 AAACTAAAAA GCTAAA 136

SEQ ID NO:3315

SEQUENCE LENGTH:139

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03888

SEQUENCE DESCRIPTION:

GATCCCACCT TCAACACCTT ACAAGTAAAG CCAATGAAGN ACAGTTGAAA CATGCAAAAT 60

ATGGNGCTTT TCAITGAATT ACTCTTTTAC TGTTTACCAT TCACTATAAT TCACAATTAA 120
AATTGTGTGN CTANACAAA 139

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SEQ ID NO:3316
SEQUENCE LENGTH:133
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

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CLONE:HUMGS03889
SEQUENCE DESCRIPTION:
GATCTGTGTA GTTAATGTAT TTATTAATGC TTGACTTTTA AAATCCTGGG CATAAATAGT 60
GCAGAGCCTC GTATGTTTGT CAGTTCATGC CGAGATGAAA TAAATCACGC AGAAAGTGCC 120
AGTCCTCCTG AAA 133

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SEQ ID NO:3317
SEQUENCE LENGTH:132
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03890

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SEQUENCE DESCRIPTION:
GATCTGTGGA GTGTGTGTTT CAAAGAGAGA ACTACAGAAA TNTTAAAGCA GGAAAACCTG 60
AATGTNATGT GCACATTTTC ATCCCATG GACAATGTAT GTGTTTAAAT AAATGGAATT 120
TTCAGATTCA AA 132

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SEQ ID NO:3318
SEQUENCE LENGTH:132
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03891

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SEQUENCE DESCRIPTION:
GATCAAATGT GGGCCCGTTT TTGGCCGCCG CCGCCCTGCC CCGTCCCTNC GGCCACCACC 60
TAATTANTTG CCGTGCTTCC TGCTGCTGTA ACTGCTTTNT TACCTTTCCA ATAAAGANTT 120
TCTTGTTTA AA 132

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SEQ ID NO:3319
SEQUENCE LENGTH:132
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03892

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SEQUENCE DESCRIPTION:
GATCATTATT ATTGTAATAG TCTCATGTTT AAATGGGATT ATATAATGAN AACAGTTTAA 60
AGAAAAATNAT AATCTTATAT NTCAAATGTG GATGCATATA ACCTGTNAGT GAAAAANCAC 120
TGANTGATTT AN 132

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SEQ ID NO:3320
SEQUENCE LENGTH:131

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SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03893

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SEQUENCE DESCRIPTION:

GATCATATTG CTGTAAGTTC TTTTAAGTAG TTGATGTGGA AAACATTTTA AAGTGAATTT 60

NTCAAAATNC TGGTTTTGTG TTTTATCCAA CTTTGTGCA TATATATAAA GTATGTCATG 120

GCATGGTTAA A 131

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SEQ ID NO:3321

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS03894

SEQUENCE DESCRIPTION:

GATCCTCAGT GTAGTTCTGA AACTAAGACT ATAGATATTT NNTTCTTTT AATTTCTCTT 60

TATACTAAAG AATCCAGAGT TGCTACAATA AAATAAGGGG AATAATAAAC TTGAGAGTGA 120

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ATAACCATAA A 131

SEQ ID NO:3322

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS03895

SEQUENCE DESCRIPTION:

GATCTTAGAG TTGACACAGC TTAATAAAAT GGAAATATTG GAATCTGAAT CCAAAACAGC 60

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CTGACTCAAA ACAATGTNCT TNCCATTATG CAAGGGAAAA AAAAAANGGT TGGGTNTCAG 120

NGNGAGGGTA N 131

SEQ ID NO:3323

SEQUENCE LENGTH:433

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS03896

SEQUENCE DESCRIPTION:

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GATCATAGTC TTAGGAGTTC ATTTAAACCA TAGGAACTTT TCACTTATCT CATGTTAGCT 60

GTACCAGTCA GTGATTAAGT AGAACTACAA GTTGATATAG CTTTATTGTT TATTGCTGGT 120

TTATGACCTT AATAAAGTGT AATTNTGTAT TACCAGCAGG GTGTTTTTAA CTGTGACTAT 180

TGTATAAAAC CAAATCTTGA TATCCAGAAG CACATGANGT TTGCAACTTT CCACCCTGCC 240

45

CATTTTTGTA AAAGTGCAGT CATCTTGGAC CTTTTAAAC ACAAAATTTA AACTCAACCA 300

AGCTGTGATA AGTGGAATGG TTAAGTTTAA TACTGTGGGT ATGTTTTTGN NTTACAGCAG 360

GTAAATGCTT TCTTTTTCCA GGTGNCCTT TGAGGATTNA GGGAAAATTA NATAACTCTT 420

TGTACAGTTC AAA 433

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SEQ ID NO:3324

SEQUENCE LENGTH:129

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SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03897

SEQUENCE DESCRIPTION:

GATCCACCCA CCTCGGCCTC CCAAAGTGCT GGGATTATAG GTGNNAGCCA CCGCGCCGGG 60
CCGGTTGCTG GCATCTTAAT GTTCTGTAGG TGGAATATTT CCAATAAACA CAAGGTGCCG 120
TAATTGAAA 129

SEQ ID NO:3325

SEQUENCE LENGTH:129

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03898

SEQUENCE DESCRIPTION:

GATCTGGTAA ACTTNNAATC AATTAAATTA ATGCANCAAT AGATTATNAA TATTAAGTGA 60
CCATTTAAGT TTTTNAATAA GTTTTTTACA AAGAAAAGTT AACATTAA AAGAATTACA 120
GCTTTCAAA 129

SEQ ID NO:3326

SEQUENCE LENGTH:128

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03899

SEQUENCE DESCRIPTION:

GATCTGGAAA TTTTTTAATC AGTTAAATTG TGCAGCAATA GATTTTTAAC TTTAAGTGA 60
CATTTAAGTT TTTNAATAAG TTTTTTACAA AGAAAAGTT AACATTAAAA AGAATTACAG 120
CTTTCAAA 128

SEQ ID NO:3327

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03900

SEQUENCE DESCRIPTION:

GATCCTGTAG TGCCTCTATA GAAGTACCCA CAGAAAAGTAA AGTATCACAT TTATAAATAC 60
CAAAGATGTA ACAATTTTAA AATTTTNTAG ATTACTCCAA TAAAGTGTTT TAAGTTTTC 120
TATGAAA 127

SEQ ID NO:3328

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03901

SEQUENCE DESCRIPTION:

GATCCATCGC GATACTATGT GTGCATTATT TGAAAGTTAT TGGAAATTTT ATTCAAACCG 60

TGGAACAAAT GTATGTNATT TTTTATACT TCTTAATTTA AATAAAATAT TTAATGCACT 120
 ATTAATAATAA A 131

SEQ ID NO:3329

SEQUENCE LENGTH:123

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03902

SEQUENCE DESCRIPTION:

GATCAGCCCT TTGTACAGAA AAATGTGTCT ATAAAAATTA TGTGTTATTT AATTCTGATA 60

CTTTTGGCT TGTAATAGC TTCTGAACT TTTTACAATA AAAATGTTT AGAAACTGTT 120

AAA 123

SEQ ID NO:3330

SEQUENCE LENGTH:123

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03903

SEQUENCE DESCRIPTION:

GATCATGACC GGAACATGGN CTGGGTTTCC ACCCAGCTCC AGGCCACATG CAATGTCCAC 60

AAGTNTGCCT TCAATNACTG GTTCAGTGA CACCTCAACT TCCAGATTGA GCACCATCTN 120

NNN 123

SEQ ID NO:3331

SEQUENCE LENGTH:205

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03904

SEQUENCE DESCRIPTION:

GATCGATTCA ATGCCCGATG CTTCTGTTTC ATTCCCGACC CTTTCTACTA TGCATTTCCT 60

TTTTATCAGG TGTATAAAGT TAAATACTGT GTATTATCA CTAAAAAGTA CATGAACTTA 120

AGNGNAACT AAGCCTTTCG TGTTTTTCCA NAGGNCNGCN NGGCTTCTNT GTACAGTTGG 180

AATAAACAGA CAGCAAAATG GTAAA 205

SEQ ID NO:3332

SEQUENCE LENGTH:122

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03905

SEQUENCE DESCRIPTION:

GATCCTCAGG CGGCCCCAC CAGGGCACAC CCTACTGTCC TTGTGCCTCA CGCCCCCTCC 60

TCATCCTGCA CCCCTTCCAT CCCACCTTCC CTTTCAATAA ACAGCTGGGA TGGATACTGA 120

AA 122

SEQ ID NO:3333

SEQUENCE LENGTH:120

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03906

SEQUENCE DESCRIPTION:

GATCTGATTT TTTCCCCCTT TACCTAGCTG TGCCCCCTCT GGTATNTAT TTCCTTAGTG 60
CCAGGAGGGC ACAGCAGGGG AGCCCTGATT TAAATAAAT CCGGAATTGT ATTTATTAAA 120

SEQ ID NO:3334

SEQUENCE LENGTH:119

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03907

SEQUENCE DESCRIPTION:

GATCACCAGT GCATCCTTCA TCACAGCATG TGCAATATGC CAAGATTACC CTCGGTCATT 60
CCTGTCAACA AGGGGTCAAT GTCATAAATG TCACAATAAA ACAATCTCTT CTTTTTAAA 119

SEQ ID NO:3335

SEQUENCE LENGTH:119

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03908

SEQUENCE DESCRIPTION:

GATCCATGAG GAAAAGATGC TCTCCACCT AAGGCCAGGA ATCTGAGAGC AGGACTGGCT 60
GAGCTCCCAG GGCAAGGGGT TACTAATGC TTATCAATAA AGAATATTGA GCCTGGAAA 119

SEQ ID NO:3336

SEQUENCE LENGTH:273

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03909

SEQUENCE DESCRIPTION:

GATCAGATTG CATGTNACTC TNAAGCTGAC GAACTTCCAT GGCCCTCATT AATGACACTT 60
GTCCCCAAAT CCGAACCTCC TCTGTNAAGC ATTCGAGACA GAACCTTGT ATTCTCAGA 120
CTTTGGAAAA TGCATTGTAT CGATGTTATG TAAAAGGCCA AACCTCTGT CAGTGNNNT 180
AGTACTCCA GTGCCAACAA TCCTAGTGCT TTCCTTTTN AAAATGCAA ATCCTATGTG 240
NTTTAACTC TGTCTNCACC TGATTCAACT AAA 273

SEQ ID NO:3337

SEQUENCE LENGTH:119

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03910

SEQUENCE DESCRIPTION:

GATCACCATG AACAAAGNTA TATTTCTAT TTATTTATTA TATGTGCACT TCAAGAAGTC 60

ACTGTCAGAG AAATAAAGNN TTGTCTAAAT GTCATGTTGG AGATNCCTTT GCATNCTN 119

SEQ ID NO:3338

SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03911

SEQUENCE DESCRIPTION:

GATCAGGACT TCAAGGGCCA GACCACAGAC TACTTATAGG AGCATCTTCA AGGCGGTAC 60

AGTGAAAACC TTGAAATGGC CTTTTTNAAT ATATATAANT AANTGTNAAT ATTATTNN 118

SEQ ID NO:3339

SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03912

SEQUENCE DESCRIPTION:

GATCCAAATN ATGGCCACAG ATGAACTTCC ATGCAAGCNA TGGCTGAGTT TCATTGCTTA 60

AAATNCTCCT CTGTTTAGAG GGGCCTGGTA GAAATAAAAA CCCACCCTAT ATCTTAAA 118

SEQ ID NO:3340

SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03913

SEQUENCE DESCRIPTION:

GATCCTCCTG GCCGCCCCGC AGGTCTNTGG AAGGGCTGGA CGGCAAGTCC GTNTAGCTCA 60

CGGCCCCCTC CAGTGGAATG GNTCTTCCG GTGGAGATAA AAGTTGATT NCTCTAAA 118

SEQ ID NO:3341

SEQUENCE LENGTH:351

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03914

SEQUENCE DESCRIPTION:

GATCCCAGGT GCGTGTNTCT CTGTCTCTCC TAGCCCCTCT CTCACACATC ACATTCCCAT 60

GGTGGCCTCA AGAAAGGCC GGAAGCGCCA GGCTGGAGAT ANCAGNCTCT TNCCCGTCGG 120

CCCTGCGTCG GCCCTGGGGT ACCATGTGGC CACAACGTCT GTGGCCCCCT GTCCNNAAGA 180

CACITCCCCT TGTNTCCCTG GTTGCCTCTC TTGCCCTTG TCCTGAAGCC CAGCGACACA 240

GAAGGGNGNG GGGCGGTCT ATGGGGGAGA ANGGGAGCGA GNTCAAGAGG TGGGCATGGG 300

TTTGNAAGG GTNGGCGTTT GGGGGGCCTN TNATGNTGGC TTTTCAANC N 351

SEQ ID NO:3342

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03915

SEQUENCE DESCRIPTION:

5 GATCATGCCG CTGCACTCCA ACCTGGGCAG CAGTGCAAGA CTCTGTCTCA AAAGGGGAAA 60
AAAAAAAANT TNCTGATGTG NCCCATGAAG GGACCTCATT TNCCTCGNAA TTTTGGN 117

SEQ ID NO:3343

10 SEQUENCE LENGTH:116

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03916

SEQUENCE DESCRIPTION:

15 GATCGGCCGT ACCAGCCGCC CCGCCGCCG GTGGGCGCTC TCGGACTACT CGCTGTACTT 60
GCCGCTCTGA GTCAGTGGCC CTTTCGTTCC TTGTAAATAA ATCCCGCCCC CGGAAA 116

SEQ ID NO:3344

20 SEQUENCE LENGTH:116

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03917

SEQUENCE DESCRIPTION:

25 GATCCAGACA AGTGGGAGAG CCCGTGGGGG CAGGGGACCT GGAGCTGCCA GCACCAAGCG 60
TGATTCTGCG TGCCTGTATT CTCTATTCCA ATAAAGCAGA GTTTGACACC GTCAAA 116

SEQ ID NO:3345

30 SEQUENCE LENGTH:116

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03918

SEQUENCE DESCRIPTION:

35 GATCTCATAA GAAATGTAAT ATGTAAATAA TATCTTGCTT TATGTTGTAA AATATACATT 60
GTTTGCNCTA GAATAGAAAT AATTTCTTTT CAATAAAAAG AAAGAAGGAC TCTAAA 116

SEQ ID NO:3346

40 SEQUENCE LENGTH:116

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03919

SEQUENCE DESCRIPTION:

45 GATCGTTGTG TTGTTATTTT ACTGCACTTT TTACTTTTTT NCGTGTGGAG CTGTATTCCC 60
GAGACCAACG AAGCGTTGGG ATACTTCATT AAATGTAGCG ACTGTCAACA GCGAAA 116

SEQ ID NO:3347

50 SEQUENCE LENGTH:116

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS03920

SEQUENCE DESCRIPTION:

5 GATCAAGGCC AAATAACCCG ATTTGGTTTG GGCACCTCAAG CAATAGTAAA GCCTGTAAGA 60
CATGATAGGA TTATNTTCCC CTTTGGATTT AAATNTAATA TAGCAGTTGG ATTAAA 116

SEQ ID NO:3348

10 SEQUENCE LENGTH:115

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03921

SEQUENCE DESCRIPTION:

15 GATCCTGTAG ACCCTTCTT TTGCCCAATT TCCCCCTTTT TGGGATGGAA ACATTACCC 60
AATCCCTATA CCCCATTGT ATCTTGAAG TAAATAATTT GTTTTGTATT TAAA 115

SEQ ID NO:3349

20 SEQUENCE LENGTH:115

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03922

SEQUENCE DESCRIPTION:

25 GATCTCTTCA CTGTNAAAAG TTGCCCGGGT GCAGCGCCTT TCCCTTCTAN CATGGGAAAT 60
GCAGGCTGGG CCCTTGGGNT NAGCCTGCGG GGCTCTGGTG CTGTCCCCGA CCCNN 115

SEQ ID NO:3350

30 SEQUENCE LENGTH:113

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03923

SEQUENCE DESCRIPTION:

35 GATCCACTGT TTGCAGCAGA ATTATATATA TGTATAGGAA AAATCCACTT TGAATAATCC 60
ATGTTTTGTA TTTGGAAATT GTTTTAAAA ATAAAAAGGA AAGGAAATAT AAA 113

SEQ ID NO:3351

40 SEQUENCE LENGTH:113

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03924

SEQUENCE DESCRIPTION:

45 GATCTAGGCA GTGGGTTAAG CCAGACCCCT AAAAGTGACC CTTTCCTCTT CTGCCCTATT 60
CTNCTNAGAC CCTCAGAAAG NNNTCCAATT TTTTAAATC CCTGTAGCTC CAN 113

SEQ ID NO:3352

50 SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear
CLONE:HUMGS03925
SEQUENCE DESCRIPTION:
GATCTGATGA ATTGGTTTT GAATCCCAGA AANGGTCTGC CATGGAGTTG GCAGTCATCA 60
CGGTAGATGG CGTATGATTT TCCTGAATTT TAAATAAAAT GAAAACCATA AATTAAA 117

SEQ ID NO:3353
SEQUENCE LENGTH:112
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03926
SEQUENCE DESCRIPTION:
GATCAGAGCT GTTAGGTAAA GGCCTAACCA CCTCCCTGCA GNCTCTTAAN TCTCAAGCTT 60
TAGGAACCCA TTTCTAAANG TACACTAGCG GAGANTTTAT ATTGTCAGCC NN 112

SEQ ID NO:3354
SEQUENCE LENGTH:111
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03927
SEQUENCE DESCRIPTION:
GATCACGGTA CGTCCATAAA GCCAGTATTA CACTTAAATN MAGTATTCTT TTTTGTAAATC 60
GTTTTTTTTA GAAGGTAAAC AAATTTAATA AAGCTACCAA TAATGTTGAA A 111

SEQ ID NO:3355
SEQUENCE LENGTH:111
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03928
SEQUENCE DESCRIPTION:
GATCTAGAAA NTGCCCTCCT TATACCCCTA CCATGAGCCC TACAAACAAA AAACCTGCCA 60
CTAATAGTAT GGTATCCCT CTNANTAAAN CATCATCCTG GCCCTAAGGN N 111

SEQ ID NO:3356
SEQUENCE LENGTH:111
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS03929
SEQUENCE DESCRIPTION:
GATCTTTGCA ATTNAAAGNT TAGCCACGTG GCTTGCTTCA GCNAGTAATG TGAATGGAAA 60
TAACGTGTAT CANTGCTGGA TAGAAAACTT AANAGCCAAC ACATGGTTCC N 111

SEQ ID NO:3357
SEQUENCE LENGTH:110
SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03930

SEQUENCE DESCRIPTION:

5 GATCCCGTAG AATATATATT TAATAATCCC ACAAACGGAG GCCAGACTTC TCGTTAACT 60
TCAGTAACAC AAGCTTCTTT AAGCCAAATA CATCACTTGC CACTACCAA 110

SEQ ID NO:3358

10 SEQUENCE LENGTH:110

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03931

SEQUENCE DESCRIPTION:

15 GATCTCCGTG GTGGTCGTGG GCCGCCAGGT GAATNANCCC CACATCCGCN TCCTGGTCAC 60
CGGCAAGACG GCCGAGTACG ACGTGGCCTA CGGCGAGAGC ACCTNTNCCN 110

SEQ ID NO:3359

20 SEQUENCE LENGTH:115

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03932

SEQUENCE DESCRIPTION:

25 GATCCTTCGA AGCACTCAGT TCACTCTTCC CCACCACAGT GGTAAAAAGG CGTTTGATC 60
TGCCACTATG TGTGTGTTTT AAAATAANCT TTTGGAAACA TGTGNGN GNAAA 115

SEQ ID NO:3360

30 SEQUENCE LENGTH:214

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03933

SEQUENCE DESCRIPTION:

35 GATCCACTAA TGTAGCTTAA GGTTATTAGN TTTGGGCTTT TAATCATGGN ATAATCTTAT 60
GTATTGGTGT AAGAGTTGAT GAATGACTTT AGCTGTGTGA ATATATAATA GTCAAACTGC 120
AAACATTTTG CATCCCTTTT GTGACCTAAT TTACAGNCAT TTAATTTGTG TTGCAGTTCT 180
GCTTTGCCGT TTAATAAAAA GCTATTTTCA NAAA 214

SEQ ID NO:3361

SEQUENCE LENGTH:110

SEQUENCE TYPE:nucleic acid

45 TOPOLOGY:linear

CLONE:HUMGS03934

SEQUENCE DESCRIPTION:

50 GATCANAGAT TTCAATNACA GTGCAGGAAA GCAGCACTGA GAAACTTTTA ATTGTNTTNA 60
ATTCTNCTT TAATGTTTAC ACCACCACAT TCCATTTCAC TTTAATTTN 110

SEQ ID NO:3362

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SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03935

SEQUENCE DESCRIPTION:

GATCTTCCCC TGACCTGCTC CCAGGGCTAT AACAGATACG GACTTTGAAA CTGTATGGAG 60
TATAGAGCAG TGCTCTATAA TTAAATAT ACATATATTG CAACCAAA 108

SEQ ID NO:3363

SEQUENCE LENGTH:363

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03936

SEQUENCE DESCRIPTION:

GATCTTCAGC TTGGTAGATT TAATTGCCCA GTGAATGCCA CTTACGTTT CATTITNNAC 60
ATGCTAAAGC TGGCAGTGAA TGTNCCACTG TATGTCAACC TCATGAAGAA TGAAGAGGTC 120
TTGGTATCAG CCTATGCCAA TNATGGTGCT CCAGACCATG AAAGTCTAG CAATCATGCA 180
ATTCTTCAGC TCTTCCAGGG AGGCCAGATA TGGTTACGNC TGCACAGGGG AGCAATTTNT 240
GGAAGTAGCT GGGAAATATT CTACGGTTTC AGGCTATCTN CTTTATCAA GGTTTGAATG 300
TCAGTNCAGT NTTTGACNAC TAAAAGGNNT NGGGGTNCTA ATTANGTNGG GTTTGAAGGG 360
TAN 363

SEQ ID NO:3364

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03937

SEQUENCE DESCRIPTION:

GATCTGGGGA GTNTNAGGAG AGGGTGGCAT CAGNAGCTGC TCAGGCTTGG CGGAGGGAGC 60
GGCATGGCCG ATGTCACTCA GCCCCTTCCC GGTCCGCCCN NTTCCN 106

SEQ ID NO:3365

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03938

SEQUENCE DESCRIPTION:

GATCGTTTT TCCAGAGTCG CGGGGACACA GGAGTNTTCC TACAGTACAT NCACGCCCGC 60
NTCCACAGT TGAAGAGAC TTTTGGATGT GGTACNTGA NTGAN 105

SEQ ID NO:3366

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03939

SEQUENCE DESCRIPTION:

GATCATCTAA AAAATGCCAT GANTGGAAAT NCGAAGGCCC AGACACCAAT ATTCNTAGA 60
AGTAAACAGC TCAAAGACAC TCTCCTATCT NAGGAAATNA ATGTN 105

SEQ ID NO:3367

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03940

SEQUENCE DESCRIPTION:

GATCCAGTGG GGTCCGGACA CTGGGCCCCG CAGCGAAAGC ACGNTCCAGC CACCAGGAGG 60
CCACCTATTN TTTCAAAATA AAGACTGCGT TCCTCTCTTG GAAA 104

SEQ ID NO:3368

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03941

SEQUENCE DESCRIPTION:

GATCAAAAAA GAAGAGTTAA AACAACACAT GTAAATNCCT TTAAATATTT NATGGGAATG 60
CCTCTCATTT AAAAATAGAA ATAAAGCATT TTGTAAAAA GAAA 104

SEQ ID NO:3369

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03942

SEQUENCE DESCRIPTION:

GATCCTTTAT CTTTCCATAT GGCACACGTA AGAAAGTGTT TTTCTACTAT TAATATTAA 60
TTAAACCTT TACTTNTGTA TAATAAATNA AAACTCAGAA TAAA 104

SEQ ID NO:3370

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03943

SEQUENCE DESCRIPTION:

GATCTGGAAG AGGCTTGTA CCTGAACTAN TATGTAGGAA GGCAGTACNA NCAGCCCACC 60
AGTGTAATCT CCCTGNATTA AGGCATTCTT AAAAAGTTAG GCNN 104

SEQ ID NO:3371

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03944

SEQUENCE DESCRIPTION:

GATCCGCTCT GGTCAAACCC TTCCAGGCCA GCCAGAGTGG GGATGGTCNN TNACCTGCTG 60
 GGAAGGCANN CTGATGGGGC ACACCCTTGG CCTCTCGTCC ACGN 104

SEQ ID NO:3372

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03945

SEQUENCE DESCRIPTION:

GATCAAAATT TTTTGATAAT TTAATAATTG TGTGTGATT TNAATTTNA AGAAATTGCT 60
 GAAACTTAG AAAATATAA TGGTATACAT ACAATAGNNA AA 102

SEQ ID NO:3373

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03946

SEQUENCE DESCRIPTION:

GATCAATAAT TTAATGTAA CTAGTTGGGA TTTTATAGTT AAAATNATAT TTGTGTATAT 60
 AACATAACTA ATCTGTAAAT NGTAATAAAT ATATTNCAA TTAAA 105

SEQ ID NO:3374

SEQUENCE LENGTH:99

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03947

SEQUENCE DESCRIPTION:

GATCATTTAG TACTTTTGTN TTCTCCCATG TGCTTGAAGG AAAATAAAG TGCTACTACC 60
 GTATTNTTG TTTTCATCAA AAAATAAAAA TAATTAAA 99

SEQ ID NO:3375

SEQUENCE LENGTH:97

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03948

SEQUENCE DESCRIPTION:

GATCTTTAGC ACAGTGATAT NACCATGACT TCACAGACAT GGTCTAGAAT CTGTACCCTT 60
 ACCCACAATAT GAAGAATAAA ATTGATTAAA GGTAAA 97

SEQ ID NO:3376

SEQUENCE LENGTH:97

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03949

SEQUENCE DESCRIPTION:

GATCAATAAT AATNAGGAAA GCATGATATG TATATTGCTG AGTTGAAAGC ACTTATTGGA 60
 AAANATTAAA AGGCTAACAT TAAAAGACTA AAGGAAA 97

SEQ ID NO:3377

SEQUENCE LENGTH:94

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03951

SEQUENCE DESCRIPTION:

GATCCCCCTC CTTCCCCCTC TCCCCATTGT ATTTATTGTC CTGCTGGAAA ATNACATCCG 60
 GAAATAAAAT AGAAATATGT CTTTNNATT TAAA 94

SEQ ID NO:3378

SEQUENCE LENGTH:93

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03952

SEQUENCE DESCRIPTION:

GATCCTAAAC TTTTGGATA ATCTTTTATA TTTNTAACCT TTGAATTAA TCATTGTNCT 60
 NAGATTAAAA TAAAAATGC TATTGAACT AAA 93

SEQ ID NO:3379

SEQUENCE LENGTH:91

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03954

SEQUENCE DESCRIPTION:

GATCTGGAAT TCCCTGCTGT AATCTTTTAA AGGGAATCCA CTGGAATATA TTAGTTTTTG 60
 TTTTAAATAA AACCATTCTT TACTTAACAA A 91

SEQ ID NO:3380

SEQUENCE LENGTH:91

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03955

SEQUENCE DESCRIPTION:

GATCTATGGC CTCTGGTGCT TTGCTCTGTA TTGGTTTAA TTTTTTTGTC CTAATCTCTT 60
 CAATCAATAA AATTGTGCGT ATTAACTAA A 91

SEQ ID NO:3381

SEQUENCE LENGTH:91

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03956

SEQUENCE DESCRIPTION:

GATCAACTNA ATGTTTAAGA CTTTAGATGT CTTGTATTAA AAATTACACA AAAAAAGTAA 60
 AACTTTTAT ACTTACCCTT TTAACCTCAA A 91

5

SEQ ID NO:3382

SEQUENCE LENGTH:90

SEQUENCE TYPE:nucleic acid

10

TOPOLOGY:linear

CLONE:HUMGS03958

SEQUENCE DESCRIPTION:

GATCTCTGTA ATNTTATNTA GAGTTTGAGC TGAAGCCCCG TATATCTAAT NTATTTTGGT 60
 AAACATGAAA GTGCATCCTT TCCCTCCAAN 90

15

SEQ ID NO:3383

SEQUENCE LENGTH:88

SEQUENCE TYPE:nucleic acid

20

TOPOLOGY:linear

CLONE:HUMGS03959

SEQUENCE DESCRIPTION:

GATCATACCT ATTAATAATA TGCCAAACAC CAAATATGAA TTTNATGATG TACACTTGT 60
 GCTTGGCATT AAAAGAAAAA AACACAAA 88

25

SEQ ID NO:3384

SEQUENCE LENGTH:88

SEQUENCE TYPE:nucleic acid

30

TOPOLOGY:linear

CLONE:HUMGS03960

SEQUENCE DESCRIPTION:

GATCAAGAAG ACGNNTAAGG GAAGAACGTA CACAGTGAAA ANCCAAAAAA AGAAAAAAAT 60
 GTTTATACAA CCCTAAGTCA ATAACCTN 88

35

SEQ ID NO:3385

SEQUENCE LENGTH:87

SEQUENCE TYPE:nucleic acid

40

TOPOLOGY:linear

CLONE:HUMGS03961

SEQUENCE DESCRIPTION:

GATCTAGGCA CACCTNGCTC TTNGCTGCAT GTGGTTATNA ACANCTTCCA GTGGAAGTCG 60
 AATAAACAGT TTTTGGTAAA TCTCAAA 87

45

SEQ ID NO:3386

SEQUENCE LENGTH:85

SEQUENCE TYPE:nucleic acid

50

TOPOLOGY:linear

CLONE:HUMGS03962

55

SEQUENCE DESCRIPTION:

GATCCTGCCC TGAATCTCCA TAGTCTCCAC TGTGAACTGA GGAGGGGAGG GGTGTGCTGG 60
GGAATAAATC TTGTATGAGA ACAA 85

SEQ ID NO:3387

SEQUENCE LENGTH:84

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03963

SEQUENCE DESCRIPTION:

GATCCATTTA NAGGCCAAAT NTCATTCTGC AGGTGCCTTC CCGATGGATT AAAGGTGCTT 60
ATNTTTTTTT AAGTTTNAAG TAAA 84

SEQ ID NO:3388

SEQUENCE LENGTH:81

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03964

SEQUENCE DESCRIPTION:

GATCGTGTTC ATTTTGNITT CCGATTCTAG ATATAAGTTT TGNATGGGCA GGAAGACTAA 60
AATAAAAGTT TTTAAGGTAA A 81

SEQ ID NO:3389

SEQUENCE LENGTH:81

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03965

SEQUENCE DESCRIPTION:

GATCTCCAGA TGTAATTTCC CCTCTTTAAT TTAAANTAAT NTAAAGATTA CTAAAAAAT 60
AAAANCTCCT AAAAANTCAA A 81

SEQ ID NO:3390

SEQUENCE LENGTH:88

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03966

SEQUENCE DESCRIPTION:

GATCTTTCTT TCCAAAACAT TTCTGGACAG TACCTGATTG TATTTTTTTT TTAAAAATAA 60
AAGCACAAGT ACTTTNGNGN TTGTTAAA 88

SEQ ID NO:3391

SEQUENCE LENGTH:76

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03967

SEQUENCE DESCRIPTION:

GATCCCCCA CAGCCCTGG TCAGTCTGCC CTTGTCACTG GTCTGAGGTC ATTAAAAATTA 60
CATTGAGGTT CCTAAA 76

5
SEQ ID NO:3392

SEQUENCE LENGTH:78

SEQUENCE TYPE:nucleic acid

10
TOPOLOGY:linear

CLONE:HUMGS03968

SEQUENCE DESCRIPTION:

GATCACAATC ATTTGAATC CCTCTCCTC ACTTTTTTTT CTAAGAAAAT AAACATTTTA 60
CTGTTTTTAT GGAATAAA 78

15
SEQ ID NO:3393

SEQUENCE LENGTH:73

SEQUENCE TYPE:nucleic acid

20
TOPOLOGY:linear

CLONE:HUMGS03969

SEQUENCE DESCRIPTION:

GATCACAGCT GACATTTACA AAATATTTTT NTACCTTAGA ATTTCTGCAT TAAATAAAAT 60
ATTTTGTTTT AAA 73

25
SEQ ID NO:3394

SEQUENCE LENGTH:68

SEQUENCE TYPE:nucleic acid

30
TOPOLOGY:linear

CLONE:HUMGS03971

SEQUENCE DESCRIPTION:

GATCTTTTGC TAATGCAATT AGNATTATGT TTTGCATGTA TGACTTAATA AATCCTTGAA 60
TCATAAAA 68

35
SEQ ID NO:3395

SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

40
TOPOLOGY:linear

CLONE:HUMGS03972

SEQUENCE DESCRIPTION:

GATCCTCTAA ATNTGGAATT TTGATGTAAT AACTGCTAAT AAAATNATAT TGAAACTGTT 60
TTATAAA 67

45
SEQ ID NO:3396

SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

50
TOPOLOGY:linear

CLONE:HUMGS03973

SEQUENCE DESCRIPTION:

GATCAAAGCC CGGAAAGGCA AATGAAGCCT CATGTGTAGT GTAATAAAGN TGTCTGCTGT 60
TCAAA 65

SEQ ID NO:3397

SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03974

SEQUENCE DESCRIPTION:

GATCGAAGCC TGTGTAAAT GCTACCAAT GGCAAAAGC AACATAAAC AGTTTGATT 60
TTAAA 65

SEQ ID NO:3398

SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03975

SEQUENCE DESCRIPTION:

GATCCCAAT ATATCTACCA TTGTATGTTA AATAAATNAC CATTTTGTGTA GAAAAAATTC 60
TAAA 64

SEQ ID NO:3399

SEQUENCE LENGTH:71

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03976

SEQUENCE DESCRIPTION:

GATCTGTAAA TNACTTTAAA AGCTATTTTA GTAATTAAA TAAATTTACT TTCTTGGTTT 60
ATACTCTCAA A 71

SEQ ID NO:3400

SEQUENCE LENGTH:63

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03977

SEQUENCE DESCRIPTION:

GATCTCTATA NTTTTTTTA AATTTTCTCC AGCCTGGGTG ACAGAGCGAN ACTCCGTCTC 60
AAA 63

SEQ ID NO:3401

SEQUENCE LENGTH:63

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03978

EP 0 679 716 A1

SEQUENCE DESCRIPTION:

GATCTCCTGC TGCCTTTCCT GGAGTTTGTG AAATTNTNCC TGAATACAAG CCTATGCGTG 60
AAA 63

SEQ ID NO:3402

SEQUENCE LENGTH:62

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03979

SEQUENCE DESCRIPTION:

GATCCAAGCA TAGTAGAAAA GCTTCATGTG TTTTAAAAA TAAACAATAA CAAAAAATTA 60
AA 62

SEQ ID NO:3403

SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03980

SEQUENCE DESCRIPTION:

GATCATGTGT TCTGGAGAGT GTTCTTTATT CAATAAAGTT TTAATTTAGT ATAAACATAA 60
A 61

SEQ ID NO:3404

SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03981

SEQUENCE DESCRIPTION:

GATCTAATTT TTCAACCTT CACTATTTTG AAAATATAAC CAAGGCCGGT TCGGGTGGAA 60
A 61

SEQ ID NO:3405

SEQUENCE LENGTH:60

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03982

SEQUENCE DESCRIPTION:

GATCATGAAA CTGATTGTAA AGCTTTTGA CAACTAATAA ATGTCTTGGT AATTGCTAAA 60

SEQ ID NO:3406

SEQUENCE LENGTH:59

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03984

SEQUENCE DESCRIPTION:

GATCAATGGA TTTGTTTACA ATGTGATATT TTCTATTAAA TCCAGTATTT TCAAATAAA 59

SEQ ID NO:3407

SEQUENCE LENGTH:58

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03985

SEQUENCE DESCRIPTION:

GATCTTGTA TAACTTATGA TAGAATGTAT CAGAATAAAT ATTTTAAACA GTGTTAAA 58

SEQ ID NO:3408

SEQUENCE LENGTH:53

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03986

SEQUENCE DESCRIPTION:

GATCATNAAA GTATACAAAA TAAATAAAGT AGGAGATTTT TTTGCTGTTT AAA 53

SEQ ID NO:3409

SEQUENCE LENGTH:121

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03987

SEQUENCE DESCRIPTION:

GATCTGTTTA GTGAGATTTA GCATGTGTGA ATAAAGTATA TGCAGGAGGA AATTGCTTTG 60

TNTTCCAAT CGGTAGAAAT TCGGGACCAT AAAAATTGTG TTTTACCATG TGGCCTACAA 120

A 121

SEQ ID NO:3410

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03988

SEQUENCE DESCRIPTION:

GATCATTGTT AAAGGATTGC TGCAAATAAA TACACTTTAA TNTCAGTCAA A 51

SEQ ID NO:3411

SEQUENCE LENGTH:60

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03989

SEQUENCE DESCRIPTION:

GATCTTTAAA ACATTTTAA TGAACAAAGT TGAATAAAGG CACAATTAAT AACTGTCAAA 60

SEQ ID NO:3412

EP 0 679 716 A1

SEQUENCE LENGTH:53

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03993

SEQUENCE DESCRIPTION:

GATCAAAACAG AAGCAGCCGT GGGCAAAATA CAATTCATT TAACAAATTG AAA 53

SEQ ID NO:3413

SEQUENCE LENGTH:521

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04020

SEQUENCE DESCRIPTION:

GATCTCATAG GACGGAGGGG GAAATGGTTT CCCTCCAAGC TTGGGTTAGT GTGTTANCTG 60
 CTTATCAGCT ATTCAGACAT CTCCATGGTT TCTCCATGAA ACTCTGTGGT TTCATCATT 120
 CTTCTTAGTT GACCTGCACA GCTTGGTTAG ACCTAGATTT AACCCTAAGG TAAGATGCTG 180
 GGGTATAGAA CGCTAAGAAT TTTCCCCCAA GGACTCTTGC TTCCTTAAGC CCTTCTGGCT 240
 TCGTTTATGG TCTTCATTAA AAGTATAAGC CTAACCTTGT CGCTAGTCCT AAGGAGAAAC 300
 CTTTAACCAC AAAGTTTTTA TCATTGAAGA CAATATTGAA CAACCCCTA TTTNGTGGGG 360
 ATTGAGAAGG GGTGAATAGA GGCTTGAGAC TTTCTTTTGT GTGGTAGGNC TTGGAGGAGA 420
 AATCCCCTGG NCTTCACTA ACCCNTNTGG ACATACTNCC CACAACCCAG TTNGATGGGN 480
 TTTCCCGTAA TAAAAAGGGN TNGGNNNTTN CCTTTTGA A 521

SEQ ID NO:3414

SEQUENCE LENGTH:501

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04021

SEQUENCE DESCRIPTION:

GATCAGAAAT NACTGTGTCA TGGTGCTCAT TCACTGCAAA CTCCCAGTTG NAAGTCCTT 60
 GGCTCCCCCG GAGGAGCAAG AATCTCATAG TTCAGAGACA CAGAGGGCCT TTAGCCCTA 120
 ATNACCTTTT GGATGGGACT GCAACTCATG ACTATCCTGA TATTGGAAGA AAGGACTTTG 180
 TTAATCTTCT CCCCATAGC TCTGCTGCGT AGGTCTACAT CTTACTCAGA ATCACTACAC 240
 ATTCCTTTAG TCTTCTCCA AGCTCCAGAG CCATTGGTAC AAATGCTTTA TTGAAACTAA 300
 ATACATANTN NACACAATGA GATGAAGACA ATATAGANGT NCGCATAGTC ATCATAATCC 360
 CGTTCCTTGG CCGGTTGAGG CAGCTCAGTG GCTGAGCCCA GTCAAGCCAA CCCGGNAGTT 420
 TCACTCACGG CNTTCAAGGN TTTGATGCT AATCCTTTG GGTTCCTAC AGTTTATTAA 480
 ATAAGTNGTC TGNGTGGGAA A 501

SEQ ID NO:3415

SEQUENCE LENGTH:485

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04022

SEQUENCE DESCRIPTION:

5 GATCTCAGTG AACTAATACA CAGCTTGAGC GTTCCATGT GCTAATGTTG CACATTACT 60
 AAAAACTTT GGAAATGGAA AATAATGTAT TAGTGCAACA GTTGATGTGC TTCTTTGGGC 120
 AAAGATATAG TTTTGTCCA CAATTTGTAC TAAAAAGCGA AAGAACATTG AAAACATAGA 180
 CTTACTGGCT GTAGCAATGC TGGCCTGTTA ACTGATAACT AGAACTTAGG TTCACGTTTA 240
 TGTAAGTGT GTAAACCTA GTAGAGCTTG CATAGTCGGG CACTCAGTAA ATGGTTTGGT 300
 TCCTTTTGCC CCTTGGAAG TTTATTTTAC CCATCCNCCC ACCTGCCCAT TCTGACTTTN 360
 TATTAATC ANCCATGTGG GACCCAGNGG TGTTAATGN GGATGTTATT NCCAGAAGGA 420
 10 GGATTGAGA AAAATTTGGG GATTNTCATT GCAGGTTAAC NATTCCAAAA ATNCTTTTGG 480
 GTAAN 485

SEQ ID NO:3416

SEQUENCE LENGTH:471

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04023

SEQUENCE DESCRIPTION:

20 GATCTGTTT TTCATCGAGG TNTCGAGGTA TNCTTTNAAA GATAGTGANA NGCAGACACT 60
 GCTCCTTGTG CAGCTCTGGT ACCTCCTGCC CACTGCTGTC ACTCAAGCC ACTGGCAATG 120
 CTTCTGCTCT CGTGTCTTGG AGGAAAATCA CCTGGGGGGA GGGGACTTCT TGTGGTAAGA 180
 GCAAGTGCAG GTATGAAATG CGAAGATTGC CCCAGCTAAA AGTGGACAAG TCCGCTTTGT 240
 GAGATGAATA CTTCTGAGA NNCNNNNCAA GTATCTCTCC ATTTACCAT TATGAAAACT 300
 25 ATCATTAAAA AAAACAGTTT AGATGCCCTC TCCTTTTGAG GGAAAAAGGG TGCTTTTAT 360
 TGTATAAAGC AGCGTCTTAT GTATTTTGAT ATACCATTGT TTGAACTTCC GTCTTTAGCT 420
 GATAGATTCT CAAATATCCT NGATTTTGGG ATGTTCAGTA TGTTTGAG N 471

SEQ ID NO:3417

SEQUENCE LENGTH:466

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04024

SEQUENCE DESCRIPTION:

35 GATCAAAAT ATTTCAAGCT ATAAAAGCAG GAGGTTATCT GTGCAGGGGA CTGGCATCAT 60
 GTATTTAGGG GCAAGTAATA ATGGAATGCT ACTAAGATAC TCCATATTCT TACCCGAATC 120
 ACACAGACAG TTTCTGACAG GCGCAACTCC TCCATTTTCC TCCGCGAGGT GAGANCCCTG 180
 40 TGGAGATGAG TCAGTGCCAT GACTGAGANG GANCCGACCC CTAGTTGAGA GCACCTTGCA 240
 GTTCCCGGAG AACTTTCTGA TTCACAGTCT CATTTTGACA GCATGAANTG TCCTCTTGAA 300
 GCATAGCTTN NNNAATATCT TTTTCCTTCT ACTCCTCCNT CTGACTCTAA GAATTCTCTC 360
 TTTCTGGANT CGCTTGAACC CAGGANGGCG GGAGGTTNCA GTAAGCCAAG GTCANTGCNA 420
 45 CTGCACNTT AGCCTTNGGT NANAANTNGA GGTTCCATT TNTAAA 466

SEQ ID NO:3418

SEQUENCE LENGTH:464

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04025

SEQUENCE DESCRIPTION:

5 GATCGCCAGG CTGATTGAGA AGAACAAGAT GAGTGACGGG AAGAAGGAGG AGCTCCAGAA 60
 GAGCTTAAAC ATCCTGACTG CCTTCCAGAA GAAGGGGGCC GAGAAAGAGG AGCTGTAAAA 120
 AGGCTGTCTG TGATTTTCCA GGGTTTGGTG GGGGTAGGGA GGGGAGAGTT AACCTGCTGG 180
 CTGTGAGTCC CTTGTGGAAT ATAAGGGGGT AGTGGGAAAA GTGGTACTAA CCCACGATTC 240
 TGAGCCCTGA GTATGCCTGG ACATTGATGC TAACATGACC ATGCTTGGGA TGTCTCTAGC 300
 TGGTCTGGGG ATAGCTGGAG CACTTACTCA GGTGGCTGGT GAAATGACAC CTCAGAAGGA 360
 10 ATNAGTGCTA TAGAGAGGAG GAGAGGAGTG TACTGCCAG GTCTTTGACA GGTGTAATTC 420
 TCATTCANTT AAAGGTTTCA GTGTTTTTGG TTAAGGTGGA TAAA 464

SEQ ID NO:3419

SEQUENCE LENGTH:457

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04026

SEQUENCE DESCRIPTION:

20 GATCACCTTC CTGTCTGGAG GCCAGAGTGA GGAGGAGGCG TCCATCAACC TCAATGCCAT 60
 TAACAAGTGC CCCCTGCTGA AGCCCTGGGC CCTGACCTTC TCCTACGGCC GAGCCCTGCA 120
 GGCCTCTGCC CTGAAGGCCT GGGGCGGGAA GAAGGAGAAC CTGAAGGCTG CGCAGGAGGA 180
 GTATGTCAA CAGAGCCCTGG CCAACAGCCT TGCCTGTNAA GGAAAGTACA CTCCGAGCGG 240
 25 TCAGGCTGGG GCTGCTGCCA GCNAGTCCCT CTTCGTNTCT AACCACGCCT ATTAAGCGGA 300
 GGTGTTCCCA GGN TGCCCCC AACANTTCAG GCCCTGCCN NNTNCCAACT NTTTGAAAGA 360
 GGAGGNCGCC TTCTTNGGGG GCTTCCAGGT TNGGNTTNC CCGGGNTTTT TTTTTTCCC 420
 TTGGGTGANA NATGGGTNGT TTNGGNGCG GTNTTNN 457

SEQ ID NO:3420

SEQUENCE LENGTH:452

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04028

SEQUENCE DESCRIPTION:

35 GATCTGGAGG GGTCAACGGA AGACGGAACA TGTCCACTTC CAGGCCCGAG CTTCTNAGCC 60
 TGCCGTTTGC CACTCTCCAG CATCTGGCCC AGCCTGTCCA TCCTCATCTC TCTTCCTCCN 120
 NNACTCCGTG CTCCCATCAC TNGGAACCAT TTGCATTNT TTGTCTCAGC TATATTGTCT 180
 40 CACCTCTGAG TTTTGGCCA TGATGTTGGA TGCCATGGAA TGCCATATCN TCCCCATTAT 240
 CTCCCCCTTG TNTGGATAAT TCCTACTCAT CCTACAATAC TGATTTTAT CTGTGCAAAG 300
 AAGGTCTTCC CCAAGTGGCC TCTGGGTTNG ANAAGGGGNG TTCCTCTGGC TTNTTCCAGA 360
 CTTTTTTGTT TCCTNCAACC AAAAGGCTTT AGGCACCGTG GGGGAAGGAG GGGTNTTNT 420
 45 TNGTCCNAGG GAAAAAGNNT NGNGGCAAAAT GN 452

SEQ ID NO:3421

SEQUENCE LENGTH:450

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04029

SEQUENCE DESCRIPTION:

5 GATCAAACT AACCTTTCAG CGTATTCTCA GCTATGACAC AGTGGTGCAA ACAACTGGAG 60
 ACTCGTGGCA CATACCATAT GATGAAGACT TGGTAGAAAG ATGTTCTGT GAAGTACCAA 120
 CCAATGGCT TTGCCTCCAC CAAAAGACAT AGAGATTCTT ACCTCTATGC TAAGTTTGTG 180
 TTTGGGTACC CTCTAGGTTG GCATCAGAGG CTCTTGAGCT GGTGTTTGT TAGGGCATTG 240
 CCTCTGTCTT GAAGATAAAA GGATTNTATT AACAGCATTG ACATTGATTT TTTAATGAAA 300
 TGAGATATAT CTTTTCATAA CCAGCTGCGT TTTTTTCCC TAACATTTGT TTTTGGAGGG 360
 10 CTTATCAAGA GTTGGAGACC TTAGTGTAGA GCAAAACCTG CATTCTCCT ACTGGGCCAG 420
 CTATTCCACT TAGGCTTGGG TGAATAANAN 450

SEQ ID NO:3422

SEQUENCE LENGTH:444

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04030

SEQUENCE DESCRIPTION:

20 GATCCCAAGT ATTAGGAGCT ATTTCTTAAA TAGTTTAAAT TTGCCTTTGA AAAAAGTTCC 60
 ATTACTTAAA AGTATTAATT TAAGCAAAAT CATGGAACAC ATTGACTAAA AAATACCTTT 120
 TATTTTTACT CAACTTGTTA AAGGGGAGA TAAAGACTTT GGCAAATTG ATTAAGTGCA 180
 CAAAATAATG TTATCCAAAC TGAGTAATTT ATTGCTGGTC TGNGGCTTGC CTTGTTTACA 240
 25 CTTAAGTAGA ATTTACGTTG TTTCCACAAA TGGCAGATAT CANTATTAA AGGNATTTAA 300
 TAGTGACCTA TTCAATAAGG CANTCATCTG GGGTAGCAAA CTTTNTTTA AATCTNACAT 360
 AACCTCAGGC TTTATAANAA NGCCACCATA ATTGGAAAAA TGGGGNTCCT CCCCTCTAAA 420
 NGCCTTAAGG GATTCAAAGG CTCN 444

SEQ ID NO:3423

SEQUENCE LENGTH:439

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04031

SEQUENCE DESCRIPTION:

35 GATCTTGTA AAATGCTGTT AGTATCCAAC CTTAAAATAT ATTAGTATAT GGGTTTTTAT 60
 TAAAAGAATT ACTTTGAATT TNCTATTAA TTCATATGTA AATAAAGGAA CATTTCATTT 120
 CACTTAAAAA AATTATATCA GTTATTAGGC TGGGTGCAGT GGCTCATGCC TGTAAATCCA 180
 40 GCACCTTGGG AGGCCAAGGC GGGTGGATTA CCAGAGTTCG GGAGTTTGAG ACCAGCTTGA 240
 CCAACATGGA GAAACCCCGT CTCTACTAAA ATTACANAAT TNGCCAGGTG TGGTGGCGCA 300
 TGCTGTAAAT CCTGGGCTAC TCAGGAGGCT TGAGGCAGGN GAATNGGNTT GAAAACCCCN 360
 GGGGGNNAGA GGTTCGGTT GAGCTGAGNN TTGCGCCATT NNACTTCNN CCTGGGCAAG 420
 45 GNGGGGNGNA ACCTNTNNN 439

SEQ ID NO:3424

SEQUENCE LENGTH:437

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04032

SEQUENCE DESCRIPTION:

5 GATCTAAGAA ATCATGTGCA TATATCTTTC AGATTCTAT TTTGGGAAAN TGAAGGTTTC 60
 TACAACATAT TGTTTCAGTG TTCAAATAAA CTGAAGGACT CAACATTACA TTTGAACTAT 120
 ATCCTTCCTA GTGGGTAGT GTGAAAAAGN GNTTGGCTGA TTCCTAAAC TCTGCCAGCC 180
 CTGCAGTAAT CTCCAGGGNC NNGTTATTGT TCAGACATTC CNTGGTGATT CCTGGGAAGG 240
 AAGCTTGGCT GCTCAGTTTC TGAGTCTGGG GTGAGATAAT GTTCTGGGAA GGGACATCTG 300
 TTCTTTGGTG TAATCTCTCA TGGTGAATC TGCTCTGTAC ATCAGACAAT TGCATTGCTA 360
 10 CCAAGTTTCA TACCAATAT TTGAAAGGTT GGTATTGAAT CTAAANCCAA ATATTAGTTT 420
 TTNTTAAACT CATGGGN 437

SEQ ID NO:3425

SEQUENCE LENGTH:424

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04033

SEQUENCE DESCRIPTION:

20 GATCCAAACC TTACACCTGA GTCTGTTAAG AGCGCCCTGC TACAGGAGGC CACAGACTGC 60
 CTGATTCTNN NGGACCGCTG TTCTCAAGGA CGGGTAAAGG GTCTCCTGGC CAAAATTCCC 120
 CAAAGCTGTG AAGACAGAAA AGTGGTGAAC TATATCAGAA AAGTCAGCA GGTTCCTGAA 180
 GCGGCACCCT ACAATGGAAC TTAAGACTTG TATTACTTTC CCAAGAGGAA AGGATTTTTT 240
 25 TCCCATCCCN NNTTGTATGA ATGGAGTTAT TTANGAAAA ANGATATTTT TACACGAAAC 300
 TTTGTAAGTG AAAGCTGCTT TTTCTTCCT TTCTTTTCCT TTTACCTCCA TAAGGAATAG 360
 GGAANGTAGG ACCAAGANAN AATTGAACTC CTTCCCATTT TCTAAATAAA GGTTCCTGGG 420
 GAAA 424

SEQ ID NO:3426

SEQUENCE LENGTH:422

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04034

SEQUENCE DESCRIPTION:

40 GATCTCNGAG CTACAATACT CACTANATAT ANTTTCCAA TCAAATATN CTATTCTATA 60
 TTCTAAGGGT TAATATGTGA TTATAGTGC CACTTGCCAC CATTTTTTA AATCAATGGA 120
 CTGAAAAAGT ATTAATTTAG ATGGATGCGC AGATATACCC TCAGTTCAGT CATAGATTGG 180
 AGTTTGCATA TAATANNNCN CCGGTATGTA GACACTATTC TAAATAGTTC TATTATGACT 240
 GAAATTTAAT TAAATAAAN NGGTTGTAAA ATNGATGTG TATGTGTATA TACNGTATGT 300
 GTACTTTTAA AATAGGGTG TATGTCCCAA CCTTTTTTA TACAGGNTG AATTTAAAAA 360
 TACCATGGTT ATATACATAT ACCTNGNNTT NGTCCTAAAA TAAAGGNTT TNATGCACGC 420
 45 NN 422

SEQ ID NO:3427

SEQUENCE LENGTH:408

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04035

SEQUENCE DESCRIPTION:

GATCTTTCCA CCTCAGCCTC CTGAGTGGCT GGGACTACAG GTGCATGCCA CCAAGCCTGG 60
 CTAACITTTT GTAGAGATAG GGTITTNCCA TGCTGCCAG GCTGGCTTAG AATTCCTGAA 120
 TTCAAGTGAT TTGTCTGCCT CAGGCTCCCA AAGTGCTGGG ATTACAGGCA TGAGCCACAC 180
 TGCACCCAGT CCATGCTACC CTTTTATAT GAAACACCTA TTAACACGGT ACAACAACAC 240
 TTCAAAACAT ATTATTTGAA TTNGGCNTC TGATTTTGA GTCANCAATC CATTANGGCA 300
 AANACCTNGT TTTCCAAACT CAGATGTTCT CCAACTTACA CTAATGTNTG GTTTTTTTGG 360
 ACTTNGGTGN GGGGAAAAAN TTAACNNGT TTNNTTTN TTATCAA 408

SEQ ID NO:3428

SEQUENCE LENGTH:378

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04036

SEQUENCE DESCRIPTION:

GATCTTAGCT TCTTAATCA GACTTTGTGA CTAAAGTT TGGGGTTTT CTTTGAAAGT 60
 TTCCAGCCCT ATTCAGAAAG CAACTCTTGG CTGTGTGCAT TTTCAACTC CAAGCAGCCC 120
 AGGGGTAAGT AAACAAAGTA TGGATGAAGG TCAGATTTN TTGTCANNNT CTGAGAAACC 180
 TGGCAGCCTG CTGTTAACA CACAGGCCAG TATTGGGTTT TATTGAATTT GGTATGTGAC 240
 CAAGGTCGGC CTAAAGGATG GCGCAGGTCC TGGGCAGGAA AGAATTTTTC CTTTATCACA 300
 TAACTGTAAT ATTTGGTTGC TCAGCATAAG TNATGGAAGC AACCCTTAA TTTCTAATAA 360
 ANTTGTGTTA ACCTCAA 378

SEQ ID NO:3429

SEQUENCE LENGTH:376

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04037

SEQUENCE DESCRIPTION:

GATCACAACA CCAGTACCAG CACGAAGAGC CTCCTCCCGA AAGAGTCTCG ACTGGACACC 60
 TTCTGGGACT AGCAGTGAAT CGGGACACAA ACCACCCACC CCATTGGGAG AAAAACCAG 120
 ACGCCAGGAA AAGAAGAAAC AACAAAGGCA GGAGAACAGC CACTTTCAGA CTTGAAAATG 180
 AAAAAACCT CAGTTGAGCC TGAGCCCCCG GCGCGGGGGC TGCTACACTA CAGGACACCC 240
 AGCATCGGCT TTGACTGCAG ACTGTTACC CACACGAGCC CTGTGCTTTT GGTGTAAATA 300
 ATGTACAATT TGTGGATGTC ATTGAATCTA GAGGACTTTC CCCTTTTAT ATTTGTATTA 360
 ACTTTAACTT ATTA 376

SEQ ID NO:3430

SEQUENCE LENGTH:368

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04039

SEQUENCE DESCRIPTION:

GATCAAGCTT GTGTACTTGA CCGTTTTTAT ATTACTTTTG TAAGTATTCT TGTCCACATT 60
 CTACTTCAGC TTTGGATGTG GTTACCGAGT ATCTGTAACC CTTGAATTTC TAGACAGTAT 120

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TGCCACCTCT GGCCAAATAT GCACTTTCCC TAGAAAGCCA TATTCCAGCA GTGAAACTTG 180
 TGCTATAGTG TATACCACCT GTACATACNN NGTATAGGCC ATCTGTAAAT ATCCCAGNGA 240
 NCAATCACTA TTCTTAAGCA CTTTGAAAAT ATNNCTATGT AANTNATTGT AAACCTTTTC 300
 AATGGTTGGG ACAATGGCAA TAGGACAAAA CGGGTTACTA AGGTGNAATT GNCCAAAAAA 360
 TTTTTTAN 368

SEQ ID NO:3431

SEQUENCE LENGTH:374

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04040

SEQUENCE DESCRIPTION:

GATCAATCTC AATTCCTTTT CATGCCCTCC TGCATTGCTG CTGCGTGGGT ATTTGTCTCC 60
 TTAGCCATCA GGTACAGTTT ACACTACAAT GTAAGCTATA GGTGGAGCAT CAGCAGTGAG 120
 TGAGGCCATT CTTTCATCCTT AGGATGTGGC AATGAAATNN TGGTGCAAGT TCCTTTCTCT 180
 TTTGTGAATC TTTCCCCCA TTTCTGTTT ACATGTAACC CAACAAAATG CAATTTCTAG 240
 NGCCTTCTGT CCAATCAGTT CTTTCTCTG AGTGAGACGT ACTTGGCTAC AGATTCTGC 300
 CTTGTTTTGC GACATTNNTC CCATTCACAC AGNTATTTAN GGGGCTAATN AANNGGANAA 360
 ATAAGGCTTA CAAA 374

SEQ ID NO:3432

SEQUENCE LENGTH:369

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04041

SEQUENCE DESCRIPTION:

GATCCTGGAG AACCTAAGAC TCCAAAAGCG TGGTACTGGA GGAGTGGACA CTGCTGCCAC 60
 AGGCGGTGTC TTAAATATN CTAATTTGGA CCGACTAGGC AAATCANAGG TGGAGCTGGT 120
 GCAACTGGTC ATCGATGGAG TAAACTATTT GATTGATTGT NAACGGCGTC TGGAGAGAGG 180
 CCAGGATATC CGCATCCCCA CACCTGTCAT CCACACCAGG CATTAACTCC CCATCGNCCA 240
 GCTGATGACT CAAGATTCCA AGGAGTTCTG CTCATTCTAA TGGTGGGCCG TTCTACTTGN 300
 TCTGGACCTG NCCTNGNATC CCCNTNGNCC TNTNNTTCCT TAGTTAAAGA CTTNGTTAGC 360
 TGATGNAAA 369

SEQ ID NO:3433

SEQUENCE LENGTH:358

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04042

SEQUENCE DESCRIPTION:

GATCGTGGGG TTGTTGGCAG AGGGCAACCC TGGGCCCCAC ACCGTGTGGA CAGGCAGACA 60
 CCAGATTGTC CAGGAGCAGG AGCTGCTGGG ACTGCGCTGG CCCCGGACCT AGTGGGCCTT 120
 CTCCTGGCTG CTGAGATGTC GTCTGTGACT GGCCTGGCTG GAGGGGGAGT GTTGACAACC 180
 CAAAGCTGTT CTCCAGTCTG GGGAGGGAGA GGCAGGGTCC CCAATGTCCG AGCTGNATCT 240
 GGACGCTGCT CTTAAAGGAC CTCCTGGGGN AGGGGAAGCG GTAGGNTCTG GACTGGGNAA 300

GATGCTGTAT GACCTCCCTG AAGNACCCGT GACTTCCCCA TGNITTACCC TTTTGTGN 358

SEQ ID NO:3434

SEQUENCE LENGTH:354

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04044

SEQUENCE DESCRIPTION:

GATCTAGAAA GCAACTTGGA AGTGTAAGA GTCACCTTCA TTTTCTGTAA CTCAATCAAG 60
 ACTGTTGGGT CCATGGCCCT GTGTTAGTTC ATGCATTAG TTGAGTCCCA AATGAAAGTT 120
 TCATCTCCCG AAATGCAGTT CCTTAGATGC CCATCTGGAC GTGATGCCGC GCCTGCCATG 180
 TAAGAAGGTG CAATCCTAGA TAACACAGCT AGCCAGATAG AAGACACTTT TTTCTCCAAA 240
 ATGATGCCTT GGGGTGGGGA GTGGTAGGGG GAAGAGCTCC CACCCTAAGG GGCACACACT 300
 GAGTTGCTTA TGCCACTTCC TTGTTCAAAA TAAAGTAACT GCCTTAATCT TAAA 354

SEQ ID NO:3435

SEQUENCE LENGTH:354

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04045

SEQUENCE DESCRIPTION:

GATCATTAAAT GAGGAGCTGA TGGCCTCCCT GGACCAGCCA ACACAGACAN TGGTGATGCA 60
 CCGCACTGAG CCCACTGCCC AGCAGAACCT GGCTCTGCAG CTGGCCGAGA AGCTGGGCAG 120
 CCTGGTGGAG AACAAACGAAC GGNTGTTTGA CCACAAGCAG GGCACCTACG GGGGCTACTT 180
 CCGAGACCAG AAGGACGGCT ACCGCAAAAA CGAGGGCTAC ATGCGCCGCG GTGGCTACCG 240
 NCAGCAGCAG TNCAGACGG CCTACTGAGC TCTCCACTCT GTTTCCCGCC TGGGCCATCC 300
 AACCTTGAAG TCCTAAACCA CACCTCAGTC ACTAAAGGTC TGTTTAAAGT TAAA 354

SEQ ID NO:3436

SEQUENCE LENGTH:350

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04046

SEQUENCE DESCRIPTION:

GATCTAATTT ATTTATTTAT TGCCTGGCCG GTGACTCGGG GGAGGAGGCG ACCCTGTCAT 60
 CTGTCCCACC TGCTGCTGCC CCTTGGAGCA GCCTGCACCT NCTCTCCTCC CATCCGGCAA 120
 CAGTNTGAAA GTACGTGGAG GACGGGACCG GAAGACGAGA GAGGGCTGGA CATCCTGCCC 180
 ACCGTNTCCC AGCCAGGGCA GGNAGAGGGA CCATGGCCCG NANGTCAAGG GGCCCGGATG 240
 TGCACAGCTG CCACAGGGAG GGAGNTCTTG GGGAGATGGG CANTCAGGTG GCCCGTCCTT 300
 GGTNGAGTGC ACANANTTGC GCGNACANAT CGGGGTTTTT CCTGGNTTNN 350

SEQ ID NO:3437

SEQUENCE LENGTH:348

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04047

SEQUENCE DESCRIPTION:

5 GATCTTGAAT CTCTTTCTTT GTTCTGTTTG TTTAGTTAGT ATCATCTGGT AAAATAGTTA 60
 AAAACAACA AAAAAGCTG TATCTGTTTC TAGCATGTGC TGCATTGACT CTATTAATCA 120
 CATTTCAAAT TCACCCTACA TTCCTCTCCT CTTCCTAGC CTCTCTGAAG GTGTCCTGGC 180
 CAGCCCTGGA GAAGCACTGG TGTCTGCAGC ACCCTCAGT TCCTGTGCCT CAGCCCACAG 240
 GCCACANTGA TAATGGTCTG TTTAGCACTT CTGTATTTAT TGTAGAAGATG NTTATAATGA 300
 10 AGATACACAC TATANCTACA AGAAATTATA AATGTTTTTC ACATCAAA 348

SEQ ID NO:3438

SEQUENCE LENGTH:347

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS04048

SEQUENCE DESCRIPTION:

20 GATCTGAGCC ACCCTCCCG CACAGCCCTG CACCCCGCCC CTAGGGTTGG CAGNCTCANT 60
 TGGCCCTGG CAGAGGAACA AGGACACAGA CATTCCCTCA GTGTGGGGG CAGGGGACAC 120
 AGGGAGAGGA TGGTTGTCCC TGGGGAGGGC CCTCTGGCCC CAGGCAACCT TAGCCCTCA 180
 GAACAGGGAG TCCCAGGACC CAGGGAGAGT NTGGGGACAG GACAGCCTGT TTCTTNTAGC 240
 TTCTTGGGGT GGGAGGCACA GGGGCAAAGC ANTACCCAG GAAAANTGGG AGGTGGTGCT 300
 25 GGTGCTCTCT CCAGGNCCAC CATGCTGGGA GAGGCGGCCA GAGCTTN 347

SEQ ID NO:3439

SEQUENCE LENGTH:346

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS04049

SEQUENCE DESCRIPTION:

35 GATCTTCCCT GGNGGCCTTC GGCTGCNTGC NTGCCTGAGG TCCNGCTGC CAGTCCCGGG 60
 CCCTGGAGAG CAGATGCTGT CTTGTNATGT ACAGGAGGAC CTTTAAAAA AATCAAGTTT 120
 CTATTTTTN CTGGTAGTCC GCATACCCAT ACCCTCTGTT TTTNAAAGGC AAAGGCCAAT 180
 NAGTCCCAT TTGTAGCATG GCACCAGGGT CTTAGGCCTA GTCCTCTCAT TCCTCCACAC 240
 CTCGAGATG GTCAGTGTGT CATGGGAAGC CCACCCACAG CTCTGCCAGT GCTCTCTGGG 300
 40 CCTGGNTCCN AGTCAGTGGT GGCCACGATG CGGTACAGGG CATCCN 346

SEQ ID NO:3440

SEQUENCE LENGTH:343

SEQUENCE TYPE:nucleic acid

45 TOPOLOGY:linear

CLONE:HUMGS04050

SEQUENCE DESCRIPTION:

50 GATCCATGTG ATTATTAATA TGACTGTAGC TGAGAGCTCT AATTTNCCTG TCTTGAACT 60
 GTATAAGANC TCATGTGATT AAGTTCACAG TTTATTGTTT GTNTGTTTAG TATTTNAGAA 120
 ATATACCAGC ACTACTAATT AACTAATGTC TNTNATTTAT NATATTATGA TAAAGTAAAA 180
 NTTTCACTTG CATTAGTCT AACTGAGAA GGTAATTACT GGGNGNGAN TGAGCAGCTT 240

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TGACTTTGAC AGGCGGTTTG TGCAGGAAAG CACAGTGCCG TGTTGTTTAC AGCTTTTCTA 300
 GAGCAGCTGT GCGNCCAGGG TAGAGGAGTG TNGAAATTCA TTN 343

5 SEQ ID NO:3441
 SEQUENCE LENGTH:340
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 10 CLONE:HUMGS04051

SEQUENCE DESCRIPTION:

GATCTGCTCA GAAAGGAAGA GGCAGGCGCC AGGGGGAACC CCCTTCGTGT TTTGTAACCC 60
 TCCCTTTNAG GTGAAGCCCT TTTTCTTGCT AAAACCGGCA ATTCTCCGGT TAGAAATNTT 120
 ACTTGGTGTT TTTTGGTTTT GTGAAACGGC CGTCCCAAAG CTGGCTGGAT TCCTAGAAGA 180
 15 GTCTGTGTG AAGGCATCTT TCAAGCCCTC GCTCTGGTTC TNAGGGCAGC ATTTTCCAGG 240
 CGGGTTTGT TTGCAATTCT TGGAGCCTCT CCGNGNAGCA ACCAGACGGG AGATTTTAAT 300
 TTTAAGCTGT TCATGCTGGG NCTGACAGCC TGCAGGTTN 340

20 SEQ ID NO:3442
 SEQUENCE LENGTH:339
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04052

SEQUENCE DESCRIPTION:

GATCCTTGGG CTGGCCTAGA ACCAGTATCT GTAGTGGATA TAAGCCAACA ATACAGCAAT 60
 ACTCAAACAT TCACAGGCAA AAAAGGAAGA TACTTTTNTT AACATTCTG AAATCAACT 120
 GGAAGCTTCA TGTGTCAGGA ACATCTTGGA CAAAACCTTA NGTTGTGTG ATATAAATTT 180
 30 ACCCAAAGAT GATGNCTTG ATTGGNTAAT TAGTAAGGTC TTTTGTAT TTTNCATCGT 240
 ATCAGGTATT GTTGATATTA GAGAAAAANG TAGGATAACT TGCAACATTT AGCTCTGGAA 300
 GTACCTACCA CATTTNGAG ATTTACCGTT TCCATATTN 339

35 SEQ ID NO:3443
 SEQUENCE LENGTH:339
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04053

SEQUENCE DESCRIPTION:

GATCTGCCGT TNATGTTGCT TTCTCCTTG TCCTCTTGA CTTGAGGGCA TTGTGAAAAG 60
 CTTTGTGTG ATTTAAAAAT GCCAGCAATT TTAATCTAGC AGTGTGAAG CTGGGAATTT 120
 TTTGGCGCAA TCCATGTAGC AGTGACCCAG GCTTGGGAGC CAGAAACAAG TGTGACCTGG 180
 45 GATTTNATTT AACACAACG TTGCCAAAGA GTTGGCTTTG TTTATTTGGT TTTGGCGGGG 240
 AGAGGAGTGG TATTTNATGC TTTCTGTGGA CANTGTAACC CTAAACACAN CANGTATTTT 300
 AANTGCCACC TACATAANTA AACCATANGC NTATTGAAA 339

50 SEQ ID NO:3444
 SEQUENCE LENGTH:339
 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04054

SEQUENCE DESCRIPTION:

5 GATCTACATA AAAACTGCTA CATGNCAAAA ACCACACCTA AAGAAATTTT AAGAATTTGG 60
 CACAGTTACT CACTTTGTGT AATCTGAAAT CTAGCTGCTG AATACGCTGA AGTAAATCCT 120
 TGTTCACTGA AGTCTTTCAA TTGAGCTGGT TGAATACTTT GAAAAATGCT CAGTTCTAAC 180
 TAATGAAATG GATTTCCAG TAGGGGTTTC TGCATATCAC CTGTATAGTA GTTATATGCA 240
 10 TATGTTTCTG TGCATGTTCT CTACACAATT GTAAGGTGNC ACTGTATTTA ACTGTTGCAC 300
 TTGNCAACCT TTCAATAAAG CATATAAATG TTGGTTAAA 339

SEQ ID NO:3445

SEQUENCE LENGTH:334

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04055

SEQUENCE DESCRIPTION:

20 GATCAGCCTC TTCCTCTATA AACAATGACC AATTAGACGT TTCCGTAATT CCATGTATTA 60
 TGTATAGTAC ACTCTATAAA TGTAATGTA ATGCTTGTCT AAAAAAGTGA ATTTATTGTA 120
 CATGTGCCA ACAAATGTTT ACTTTTATAA TCGTTATGAA CTTGAATTGG ATTAGTATCT 180
 TGTTTTATG TGTGAATGAA GCCTTGTGAA ATAAACAAAT GCAACTGAGA AGGTAACAAG 240
 25 GTGACTGTTT TTGTGAGCCA GTGATGTTT CAATGCTTTG TGTGCCCCCT TTGGCCCCAT 300
 TAAGCAGTAA TAAACATTG TTCTGAAGTC CAAA 334

SEQ ID NO:3446

SEQUENCE LENGTH:334

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04056

SEQUENCE DESCRIPTION:

35 GATCCAAGAA GCGGGTCCCT GAGACGGGGG GTGGCTGCCC TCCCAGACC ACCCCGGCAG 60
 CCTGAGCAGN TCCAAAGCAC TGGCTTGGGG TCCGAGACCT TCAATGTAAA GCAGGCGGAA 120
 TGGGGGGACA GGACAATTC TCCCCTCCA GGGGCTCCAG GACTCTCCCT GGGGGGCCCA 180
 CCTCTTGCCC CCTAACCTCT TCCCCCTTT TCTGCCCCCG TGGGGAGGAG CCCCTTGATC 240
 CTGCTCCGTG CCCAACACAT GCCCTCTCTG TACATCTTTT GGTAAATNAT GAGAAATAAA 300
 40 GGAAGTGGAC GCAAAGTGGA TCGGCAGCA GAAA 334

SEQ ID NO:3447

SEQUENCE LENGTH:332

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04057

SEQUENCE DESCRIPTION:

50 GATCCAATCT CAGTGTCTAA CTCATCATCC CAGATTATTC TGAAGTGGA ACCACCCTCC 60
 GACCCCAATG GCAACATCAC CCACTACCTG GTTTTCTGGG AGAGGCAGGC GGAAGACAGT 120
 GAGCTGTTCC AGCTGGATTA TTGCCTCAAA GGGCGAGTCC AGTCATCAGC TCCGCTGTAA 180

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GCTGTTGGCC CTGCATTCAA GTAACCAGAA CCACCCGTGA GAGCTGCCAC CAGGTANTGT 240
CACTCGAAGC TTCCTTTTTT TTTTTTTTNA ATTCCGGAAA GTTTAANTCT GTANTCCCAG 300
GGGNCCATTT AAANANGGTT TTTTTTTGTA AN 332

SEQ ID NO:3448

SEQUENCE LENGTH:332

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04058

SEQUENCE DESCRIPTION:

GATCCAAAAA AAGCTNGAAG CCTACATTTC CCAGAGCCCC TTTCAGCTTG AATTCCAAAT 60
GTGACTTAGC TTCCTCTATG CAGATGTACC TACTTGAAAC TGGGAAGGCC AAATNAGATA 120
GAGGNAATNT TTCTGCCAAC AAACAGCCAC AGAGCATTTT ATTTTCTAG AAGAGCAATA 180
ACAGAGACCC CAGGGTGTGG TGTGGCAGGA CGAGGAGCAT CCATTTTGCT GGNNGGGGATT 240
GTGGCTAAAA TAATGNGGCT CTGGAGCCAG CAATNGGCAG CATCTTCATG ACTTCCAGN 300
TTCCAGGCTG TAAGCAGAGA TAGCATCTCT TN 332

SEQ ID NO:3449

SEQUENCE LENGTH:326

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04059

SEQUENCE DESCRIPTION:

GATCCACTAT ATGCCTCAGC ACATGGAACC TTAATGACCA AAGTGAAGAG CAGATTATTC 60
ATACGGTGTA ATAAGCATCT GGAATGGACC CATCCGTGTA CTTCAATCAA ATGTGTAAAT 120
GTCATATCA TTCAGATTTA TAAAGCTAGT AGTGATAGT CAGAAACAGA ATCAAAGTTA 180
GATATACATT TTTAAATATT TACTGCATAT GAGGCTTTCT GTTAATTTT TAATGTGAAT 240
AATTATATA TTGCACATTC TAGGGAATAA TATTGATTGT ATGNCTACTG TGCTGCATTA 300
AGAAAATAAA ATTCCTATAT NCCAAA 326

SEQ ID NO:3450

SEQUENCE LENGTH:329

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04060

SEQUENCE DESCRIPTION:

GATCAGAAAA ACTGAAGATG GAAGTTTGG CCGGTGCTCA TTAGACATGA GTCCTCACTC 60
TGTNTCCTGA GCCCGTTTCA TTCTTCCAAC CTCCTGCCC CCACACACTT ATCCAGACA 120
CAACACCATG TGGTCTGGAG GTCCCAGCCC CCACCCTAAA AAGGTTATCC CNGAGAACTC 180
CACCAGACTT GGGAGCCCAA GTGCAGTGCC TGGNGCTGCT CCCATCTGCC GGGCCCNNTC 240
TTTCTNGCA ATTGGTTTGN ACTCACTGGG CTGTGCTCTN CCCTGTTTAC CCGATGNNG 300
GGAAATAAAG GCCCTTTTGC CTCCTGAAA 329

SEQ ID NO:3451

SEQUENCE LENGTH:325

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04061

SEQUENCE DESCRIPTION:

GATCTGGCGC TTCTACTTTG AGGGCTTCTT TGACCTCATT GCTGTGGTAN GCCGGCGTAG 60
 TCCAGACCAT CCTATACTGT GACTTCTTCT ACTTGTACAT TACAAAAGTA CTCAAGGGAA 120
 AGAAGCTCAG TTTGCCAGCA TAAGTGCCAA AGGCCATCAC CAGCATCTGT CCTTCAGGGT 180
 GCTCGGACAG ANTTNTTACC ACAGCAANGG CATAAGGTGC TTTATACGGA AANTCAGNAA 240
 CTTAACTCTT TTGTTGCAGN TAGTCATCAG TGGCTCTGTA AAAACGGAGG GGGAAAGNGN 300
 CNGGAGGTTT CTGTTAATG CATCN 325

SEQ ID NO:3452

SEQUENCE LENGTH:324

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04062

SEQUENCE DESCRIPTION:

GATCTGATTT TATGTTCTGA ACTTCTGTGA AAGAAAGACA CAAGGACTTT TCAAAGACAG 60
 TTTATATCTT TCCAAGGCAG GAAGCTTTGC ATTTGCAATC TTAGTGTGT GTCCCTTCT 120
 GATTTTCAA TACATCACAC CTGCCTTCCT GTTTGGGAG CAAAGATGTA ATTTCAATTC 180
 CCTTGTCTAC CGTCCTTATT TAAATNATTT CCATTCTAAG AGATTTTNGT NATTTNNNTA 240
 AATGTAATCT GAGCACTTNN TNGTATTCTA AAAGATAGAT GATATCAGAT AAATATGTTG 300
 TACATTTTGA TTAATAATTAT TTTN 324

SEQ ID NO:3453

SEQUENCE LENGTH:339

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04063

SEQUENCE DESCRIPTION:

GATCTGGAAG ACAGACGTAC AGCTTGGAGG GCAGGGGGAC TCTAAGGCAA GGAGATTAC 60
 AGTTGGGAAG GAGGCAGTGG CAGAGGGGTG AGGGACAGGG GCCCTTAAGT CCAGCGAGGA 120
 AAGCTCNNTG TGGGCCCGCT CTACGCTCCG TTTGGGGTGA CCTGGAACGC CTCTTCTCCC 180
 AGCTCCCTCC AGCCATCAGC AGCCTCTTGT CAAGCTTCTG CCTCGCCCCA GTCTATCCCC 240
 AACCCCAAAT CAAGACCACC TTTCTTCACG GTCATATTT ATTCTTTGTT CCTTTTCTT 300
 TTTGTAAGAA ACATTCACAA AAACCAAGTGC AAAACCAAA 339

SEQ ID NO:3454

SEQUENCE LENGTH:317

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04064

SEQUENCE DESCRIPTION:

GATCTCAATG CTGTCTGGGG ACCCTGAAGA GTTTTNTNAC CTGTTCAAGT TCATCTAACC 60
 TTCCAATGTN TGATGTTCTT GCCAAATTC TGCCTGATTC TGGGTCCGTC CTGACCTCCA 120

AAGGTCAGNT TGGTGCTTGA GGTCTCCNTG CTCTGGGTGG CAGTGGTAGC AGCAACAGCA 180
 GCAGCAGCAG CAGCAGCAGC AGCAGAGACC TNTCCACTTT CCCTTAGCCC TNTGNTGGGT 240
 AGAGGGAAC TAAAGGACTT CCTCCAGNNG CNTTTAATNT GGGAAATGGGT AAGAAGGTTG 300
 NGCTCCNCTG TTNGTTN 317

SEQ ID NO:3455

SEQUENCE LENGTH:315

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04065

SEQUENCE DESCRIPTION:

GATCCTCAAA AAACCCAAAA ACACCATTCT CTAATAGTCA TGACAAATGG CTTCAGTATG 60
 GCTTGTTTT NATTTNCCAG ATGGCTTTT CTCTTATTT TNGAAGCCCC AGTCCTTGAT 120
 TTTACAGGTA ACTTTCAAAA CATCATGATG CTGCCAAATG TACTTTTGTA AACTTAAACA 180
 TTATGATTCC TGTATTATT CAGTGAGAGC TACAGTGTGA TATTNCAGAG TCTATTAAAT 240
 AAAAATGTGA GTTTGAATTA CACCATCTGT GCCAATTACA AAGCAATTAA AGGATTATN 300
 TNTNATGAAA AAAAN 315

SEQ ID NO:3456

SEQUENCE LENGTH:312

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04066

SEQUENCE DESCRIPTION:

GATCTGAGGC TGTGTCTCTG CCTTGTTTT AGAGGACTTC AGCGTCCAAG ACTGGGGCCC 60
 ACCNTTNTCA CCAGCACTAA ATGCACTAAC AAGGACTCCA GACCTGCAGC CCCAGACCCG 120
 CCGTAGTATA AGCCTAACAA GCAACANGTA GCACCTTAGT CTTTGTTCCA GGAGAGCTGA 180
 GCAAGCTGGT GAAACCACTC TCCTTCCTTT AAACANC GTT TCAACCANCC TTNCNTGGA 240
 GCCAACNTGT AAAAAGTGGG TTGATTGCTG ACAGNATGGT CTTCTTCCC TGGATTNAG 300
 ACATACCACT TN 312

SEQ ID NO:3457

SEQUENCE LENGTH:309

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04067

SEQUENCE DESCRIPTION:

GATCTTCCG GGGCCTACAG GCGTGTAAGA CAGCTTGGTC TGGTCTGTGC AGAAGTGGGG 60
 AGTGATGGGC AGGTTCCGCA GCCTAACATT GTTCAGGCGC ATGGCCCTG CGGTGTGTAC 120
 ACGAACTCGG CTTCTTTTGT CTTAGGTACG CCAAGGGCAG GTTCTGGAG ACTCCCTTGT 180
 GCCCGGGATG GCAAGGGCAC CGGGCTGGCG TTTCCACATC TGTCTTCATT AGCAGANNAG 240
 TGATGATGGA TTTTATTTCA CTCACACTCC AGTTTGTAA AAAATGCCAA ATTCTGTCAG 300
 CTATCCAAA 309

SEQ ID NO:3458

SEQUENCE LENGTH:309

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04068

SEQUENCE DESCRIPTION:

GATCAGCACC ATTTGTGGTA TGTTCGGA TGAGCGTTA GTGAGCCTNN TGGCTGCAGA 60
 GCACTATGAA ATCATGGTAC GTAGTCCCG GCACCTGTCG TTATTCCTAT ATCCTCCTGC 120
 AACTGTGGTT TGAAACTGCG CATTCTCTAG TAGTATATAT CGTGCCTGTC TTCAAAAACA 180
 TTTCCCTTNN GTATACTCAT NCCCCCAGG CATTGGGGTA GTGTCAGTCG GACTGCACAG 240
 GGAACACGGT TTCCAGTGGC TTGGCCCT ACTCGGGAAA CGTCTGCCTG TTCTCGATNG 300
 TGATGGGGN 309

SEQ ID NO:3459

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04069

SEQUENCE DESCRIPTION:

GATCTAGCTG GTCACGACGA TGTTTTCACC AAGGTCACAG GAGCATTGCG TCGCTGATGG 60
 GGTGGAAGTT TGGTTTGGTT CTGTTTCAG CCCAATATGT AGAGAACATT TGAAACAGTC 120
 TGCACCTTN ATACGGTATT GCATTTCCTA AGCCACCAAT CCATTTTNG GATTTAATGT 180
 GTCTGTGGCT TAATAATCAT AGTAACAACA ATAATACCTT TTTNTCCATT TTGCTGCAG 240
 GAAACATACC TTAAGTTTTT TTTGTTTTT TTTGTTTTT TTGTTTTNG TTTTCCTTA 300
 TGANGAAA 308

SEQ ID NO:3460

SEQUENCE LENGTH:351

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04070

SEQUENCE DESCRIPTION:

GATCAAGCAG AGAAANTAAT TAATTCATG GGAATAAATG AACTAGTGAG GATAATATTT 60
 NCATAATTNT TNATTGAAA TTTTGCTGAT TCTTAAATG TCTTGTTC CAGATTCAG 120
 GAAACTTTTT TCCTTTAAG CTATCCACAG CTTACAGCAA TTTGATAAAA TATACTTTTG 180
 TGNACAAAAA TTGAGACATT TACATTTCCT CCCTATGTGG TCGCTCCAGN NCTTGGGAAA 240
 CTATTCATGG AGTATTNTA TTGTATGGTA ATATAGTTAT TGCACAAGTT CANTAAAAANT 300
 CTGCTCTNTG TATAGCANGG NNNGGGTTGG GGGGGCGGGN GGNGGGGGG N 351

SEQ ID NO:3461

SEQUENCE LENGTH:305

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04071

SEQUENCE DESCRIPTION:

GATCAGATAG TTTCTGAGG CTAAAATGCC CCAACATGTA AAAGACTGCN ACAAGGGTTA 60

ATGAGCCAGG AACTGCCGAT GGTAACCTAC ATCTCTATAA TTACCATAGG ATATATATGA 120
 GTACCATAGG ATTCTTTTGC ATAAGTGTAG AAAGTACAGA CAACACCCTC CCGTGTTTGC 180
 TATTAGAGTT TTTANTGTTG ATTGGAAAAAT GGGAGATTCA CTGTGTGCCA TTCTTGGTAT 240
 ACGTTGANGA AATTACATCA CTAGTACACA CNGNGGNNNT TCCACATTCA CACGCCCCAG 300
 CTCTN 305

SEQ ID NO:3462

SEQUENCE LENGTH:303

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04072

SEQUENCE DESCRIPTION:

GATCAAGCTA CAGATATGGG ATACAGCAGG CCAGGAGCGA TTTACACCA TCACAACCTC 60
 CTACTACAGA GCGCAATGG GTATCATGCT AGTATATGAC ATCACCAATG GTAAAAGTTT 120
 TGAAAACATC AGCAAATGGC TTAGAAACAT AGATGAGCAT GCCAATGAAG ATGTGGAAAG 180
 AATGTTACTA GGAAACAAGT GTGATATGGA CGACAANNGT GTTGTACCTA AAGGAAAAGG 240
 TGANCAGATT GCNNGGGAGC ATGGTATTAG GTTTTTTGAG ACTAGTGCAA ANGCNGGTAT 300
 AAN 303

SEQ ID NO:3463

SEQUENCE LENGTH:303

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04073

SEQUENCE DESCRIPTION:

GATCCGGTCA TACATCCACA TCAGGCCTGG CCAGCTGGAT GTTCTTAAAN AGTTCACAA 60
 GCAGATTACT GCACGGGCAA CAAAGGATGG GACTTTTGTC ATTTCAAAGA CATGATGTAT 120
 GGGGATTAGA AAGAACTCAA GACACTCCTG CTTGATACAG AACAAAAAGA GCTTAACAGG 180
 ACCAACAGGG CTTAAGCCCA GACTTGACGT AACAGAAATG TGCCAATAGG TAATAGGTAA 240
 TTTTNCITTC TCTGACTTGT TTTGTTTCT TGAATAACA CTGTTGTGTG GCTAGAAAGG 300
 AAA 303

SEQ ID NO:3464

SEQUENCE LENGTH:348

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04074

SEQUENCE DESCRIPTION:

GATCTACTTT CACATCTCA AGTTTTNTC ATCTGCATTA GAGGTGCCCA GTAGGTCCC 60
 AGGTTCCAGC GTGCCCTCC CTCAGACACA CGGACACAAT CAGCCGAGAA GTTCCTGGTC 120
 TGAATCAGCA GAATGTGGAG GGGTGGGGG TGTCAGTGGA AAGGCATAAG GCTGAGCTGA 180
 GACCAGTTGC TGGTGAAACT GGGCCAATCT GGGGAGGGA ACATCCTTGC CAGGGAGTTT 240
 CTGAGGGTCT GCTTTGTTA CCTTTCGTGC GGTGGATTCT TTTAACTCC GTCTACCTGG 300
 CGTTTGTGTA GAAATGTCAG ATAGGAAAAA AAAAACCATT TGAGTAAA 348

SEQ ID NO:3465

SEQUENCE LENGTH:299

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04075

SEQUENCE DESCRIPTION:

GATCTGACCT GGTGAGATTA TTTCTNATGA CCTCATCAAA AAATAAACAN TTCCCAATGT 60
TCCAGGTGAG GGCTTTGAAA GGCCTTCCAA ACAGCTCCGT CGCCCCTAGC AACTCCACCA 120
TTGGGCACTG CCATGCAGAG ACGTGGCTTG GCCCAGAATG GCCTGTGCCA TAGCAACTGG 180
AGGCGATGGG GCAATGACAG ATACANCAGA ACANTGCTTT TGAGGCANGC TTCTTCCCTN 240
GNGGGTNGGT TGTNATGGCC NTGGCTTTTT NAGTTGGGNG NCATTANAT TAAGGTTN 299

SEQ ID NO:3466

SEQUENCE LENGTH:415

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04076

SEQUENCE DESCRIPTION:

GATCTACGTN ATTCAGGGC AGTTCCTACA GATGAAGCAA GAGCTTTTNC AGAAAAGAAT 60
GGTTTGTNAT TCATTGAAAC TTCGGCCCTA GACTCTACAA ATGTAGAAGC TGCTTTNAG 120
ACAATTTTAA CAGAGATTTA CCGCATTGTT TCTCAGAAGC AAATGTCAGA CAGACGCGAA 180
AATGACATGT CTCCAAGCAA CAATGTGGTT CCTATTCATG TTCCACCAAC CACTGAAAAC 240
ANGCCAAAGG TGCAGTGCTG TCAGAACATC TAAGGCATT NTNTTCTCCC CTAGAAGGCT 300
GTGTATAGTC CATTCCCGAG GTNTGNGGAT TTAAATATAT TNGTAATNCT NGGTGTCACT 360
TTTGGTGT TTATNACTCA TACTTATGGN TTTTCCATG NCCTAAGNCT TTTN 415

SEQ ID NO:3467

SEQUENCE LENGTH:295

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04077

SEQUENCE DESCRIPTION:

GATCCACCTT CTTCCTTAGG TCCCCTCCTC CATCAGCAAA GGAGCACTTC TCTAATCATG 60
CCCTCCCGAA GACTGGCTGG GAGAAGGTTT AAAACAACAA AATCCAGGAG TAAGAGCCTT 120
AGGTCAGTTT GAAATTGGAG ACAAACTGTC TGGCAAAGGG TGCAGAGGG AGCTTGTGCT 180
CAGGAGTCCA GCCGTCCAGC CTCGGGGTGT AGGTTTCTGA GGTGTGCCAT TGGGGCCTCA 240
GNCTTCTCTG GTGACAGAGG CTCAGCTGTG GCCACCAACA CACAACCACA CACAN 295

SEQ ID NO:3468

SEQUENCE LENGTH:292

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04078

SEQUENCE DESCRIPTION:

GATCAAAGCA CTGGGCTTGT CCAGGCNCAT AATAAATGCT CCATTGAANG TACTATTCTN 60

GTTTCCACT GCTGTGAAA CCTCCTTGCT ACTATAGCGT CTTATGTATG GTTAAAGGA 120
 AATTTATCAG GTGAGAGAGA TGAGCAACGT TGTCTTNCCT CTCAAAGCTG TAATGTGGGT 180
 TTNGTTTAC TGTTATTGG TTTGTNGTGG TATCCTTTTC TCCTNGTNAN TTGCCCTTCA 240
 GAATGCACTT GGGAAAGGCT GGTTCCTTAG NNNCTGGTT TGTGCTNNT NN 292

SEQ ID NO:3469

SEQUENCE LENGTH:291

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04079

SEQUENCE DESCRIPTION:

GATCTCTTAA GAGATGATGG ACTTATGTAT GTTACAAGAC TTCGAAATGT TGGAGTCCAA 60
 GTNGTTCATG AACATATTGA GGATGGAATT CATGGAGCTT TATCATTCAT GACTTCACCA 120
 TTTTATTTAC GTCTAGGTCT TAGGATAAGA GATATGTATG TAAGTNGGCT GGATAAGANT 180
 TTATAAATAT GTGATGTGTA TGTATAGCCC TTACATAGTG GATTGTAATT NGTGATATTT 240
 TGTGGTTTTG GAGCAAAGAN CAATGTCATT TGAGTTATCT AAATCTACAT N 291

SEQ ID NO:3470

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04080

SEQUENCE DESCRIPTION:

GATCTTTTGA TTCCTCTTGG GCTGAAGCAG ACCAAGTTCC CCCCAGGCAC CCCAGTTGTG 60
 GGGGAGCCTG TATTTTTTTT AACAACATCC CCATTCCCCA CCTGGTCCTC CCNCTTCCCA 120
 TGCTGCCAAC TTCTAACCGC AATAGTGACT CTGTGCTTGT NTGTTTAGTT CTGTGTATAA 180
 ATGGAATGTT GTGGAGATGA CCCCTCCCTG TGCCGGCTGG TTCCTCTCCC TTTTCCCTG 240
 GTCACGGCTA CTCATGGAAG CAGGACCAGT AAAGGGACCT TCGATTAATA 290

SEQ ID NO:3471

SEQUENCE LENGTH:287

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04081

SEQUENCE DESCRIPTION:

GATCCAAAGT CCTGTGGTTA ACGCCTTCAT TTATAGATGA GGCAGCTGAG GCCTGGGGAT 60
 GTGAACAACC TGCTCACAGT CCTCATTTAC TGGATTGAC TTCAGCCAGG TGAAGTGGAA 120
 TGCCTTGGGG CGTGAAGGG CATTAGGAGT GTTTCATTG ATATGTGAAT GCTCATAAAA 180
 AAATGTCAAG GAATGAAGAA CAGCANCTCT CAGTGGTGCC TGCATTIATA ATTATTTATG 240
 TGAAAGTCAA ATTCATGTAC AGTAAATTG TTATAAGAAT ATTCAA 287

SEQ ID NO:3472

SEQUENCE LENGTH:287

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04082

SEQUENCE DESCRIPTION:

GATCCAAAGT GCAAGGNTTT GATTATAAAC ATAATTCCT AGACTGAAAG TTTTGGAAA 60
 AGATGCAGGG TCTGAGTCAG GCCTTCTGGT TATATTGTGC AGTTTCAAAA GAACTATTTA 120
 ANACTCTTGA AAACATCATG AAATAAAAAAT CATAGGGTGA AAATTGTATT TGTTAAAAATA 180
 CCTTAATAAT TTAATAATGAC CTGATTTCCT GGAAAAATTT ATTATTCAAA AGGTGGAGGC 240
 ATTGTAAGAAA GGAAATAGTG ATGTAAATAA ACATGTTCTC TTTCAAA 287

SEQ ID NO:3473

SEQUENCE LENGTH:278

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04083

SEQUENCE DESCRIPTION:

GATCTGTTG TCACTGACAG ACTGTAGTAG TGTCTGTGTG CTGACTGATA GATAGACTAT 60
 AGTAAAAATTT GGGTGTGTC TGACTAACGG TCTAGGGTCT GTAAGCTGAC AGTCTGCCTG 120
 CTTTCTGATT GTATCCATTG AAGTGTATGT ACATTATGGT AATNCTCTGT CTATTAATG 180
 TGTCTAACAA AGGAAGGAAT TAAGCACTCC ACATGTTTC TTTATAGGGG AGTTCTGTAC 240
 ACTATGATTT TAAATAGATA TTTCTTATAT AANGGAAA 278

SEQ ID NO:3474

SEQUENCE LENGTH:278

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04084

SEQUENCE DESCRIPTION:

GATCCCAACA CTGAAGGGGT AGAAGGCCAG GGGGGCATGG AGAGTGCAGC TCCATTATAG 60
 TGAAGAGCCA AACATATGTN AACTGTTTGC TGTGTGGAGG TGTTAGTTCT GCTGCCTACC 120
 ATCTTCATCT CTAGCACCTC CCCTGCCAAG AGTCAACCAC TAAGCAATCC CACCCAAGCC 180
 TGGATGCTTC TAGAGGGGCC CACTCCCAGC TGGGAGAGTN TAGGGGATAT GCTCACACCA 240
 CATTAGCAGC AACCAATAAA AATGCTGGAA ACAAGAAA 278

SEQ ID NO:3475

SEQUENCE LENGTH:277

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04086

SEQUENCE DESCRIPTION:

GATCTTAACT GTGTCATTTG AAACCCTGTG CGTTTGAAGT GGTGGAGACA GGACCTTTAT 60
 CATATTCTGA GCTTTAAATA TATAAACNGG TAAATCATTC CATTAAATAA GACATAGCCC 120
 AAGTCCCAGA ACGCGTTTTG AGAGTAACCA GAAACAGAGG TTATTTGTTC TGCTTCTTTT 180
 TATCACTGCT ATTGGATGGG ATATCCCAAA CAAGTGGATG TGCGCCCCAA TTCTATTTTC 240
 CACTATTCAA TGATTAAAT AATTACAAAA ACGCAAA 277

SEQ ID NO:3476

SEQUENCE LENGTH:273

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04087

SEQUENCE DESCRIPTION:

GATCTTTCCA AATACCCAAA TGTCCTGCA AGCCCGITAA ATAATCCCT ATGCTACCT 60
 TAATAACATA CAATGACCAC ATAGTGTGAG AACTTCCAAC AAGCCTCAAA GTCCCTTGAG 120
 ACTCCCAAT ACCTAATAAG GCATGCGAAA TGTTCATG AACTACCCA CAACACGCCT 180
 AAAACTCAAA ACACCCAAA ATATNTCCTC CAATGTCCTG AAACATGAAC CCAAAAAGAG 240
 ACCACAATA AACTCGTGAC TTGTCCNTC AAA 273

SEQ ID NO:3477

SEQUENCE LENGTH:272

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04088

SEQUENCE DESCRIPTION:

GATCCTCTCN ACCCTCCTCT AGCCATCCCT TGGGAAGGG TGGGAGAAN TATAGGATAG 60
 AACTGGACA TGGCCATTG GAGCACNNGG GCCCACTGG ACAACACTGA TTCCTGGAGA 120
 GGTGGCTGCN CCCCAGCTT CTNTCTCCT GTNACACT GGACCCCACT GGCTGAGAAT 180
 CTGGGGTGA GNGGACAAG AAGGAGAGGA AAATNTTCC TTGTGCCTGC TCCTGTACTN 240
 GTCCTCAGCT TGGGNTTCT TCCTCCTCA TN 272

SEQ ID NO:3478

SEQUENCE LENGTH:270

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04089

SEQUENCE DESCRIPTION:

GATCTTGATA TTNGGCCTCT TTGAAGAGAC AGCCCTGGCT GCTTCCTNN CCTACTGCCC 60
 TGGAATGGGT GTTNCCTTA GGATGTATCC CCTCAAACCT ACCTGGTGGT TCTTTGCCTT 120
 CCCCTACTCT CTTCTCATCT TCGTATATNA CGAAGCAGAA AACTCATCAT CAGGCGACGC 180
 CCTGGCGGCT GGGTGGAGAG GGAACCTAC TATNAGCCCC CCGTCCTGCA CGCCGTGGAG 240
 CATCAGGCCA CAACTCTGC ATCCGACACN 270

SEQ ID NO:3479

SEQUENCE LENGTH:267

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04090

SEQUENCE DESCRIPTION:

GATACCAAC AGGGAAGAC ATCCTGGTTC TTTTGATGTG GTGCATGTGA AGGATGCCAA 60
 TGGCAACAGC TTGCCACGA GGCTTTCCAA CATTTTGTG ATTGGCAATG GCAATAAACC 120
 TTGGATTTC CTGCCCAGGG GAAAGGCGAT TCGACTTACT GTTGCTGAAG AGAGAGATAA 180
 GAGGCTGGCC ACCAAACAGA GCAGTGGCTA AATTGCAGTA GCAGCATATC TTTTTTCTT 240

TGCACAANTA AACAGTGAAT TCTCAAA

267

SEQ ID NO:3480

SEQUENCE LENGTH:263

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04091

SEQUENCE DESCRIPTION:

5 GATCCCTGGA GTGCCTTGGT GTTCAAGCC CCTGCAGGAA GCAGAATGCA NCTTNTGAGG 60
 CACCTCCAGC TGCCCCCGGC CGGGGGATGC GAGGCTCGGA GCACCCTTGC CCGGCTGTGA 120
 TTGCTGCCAG GCACTGTTCA TCTCAGCTTT TCTGTCCCTT TGCTCCCGGC AAGCGCTTCT 180
 GCTGAAAGTT CATATCTGGA GCCTGATGTC TTAACGAATA AAGGTCCCAT GCTCCACCCG 240
 15 AGGACAGTTC TTCGTGCCTG AAA 263

SEQ ID NO:3481

SEQUENCE LENGTH:257

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04092

SEQUENCE DESCRIPTION:

25 GATCGGGAAC AAATGNAATC TGTGGATGCA TCAAGCTATC GTCAGTCAAA CCCCTTTAAA 60
 ATGTTGCTTT GGCTTTGTAA ATTTAAATAT GTAAGTGCTA TATAAGTCAG GAGCAGCTGT 120
 CTTTTTAAAA TGCTCGGCT AGCTAGACCA CAGATATCTT CTAGACATAT TGAACACATT 180
 TAAGATTGTA GGGATATAAG GGAAAATNAT ATGAATGTGT ATTTTACTC AAAATAAAAG 240
 30 TAACTGTTTA CGTAAA 257

SEQ ID NO:3482

SEQUENCE LENGTH:255

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04093

SEQUENCE DESCRIPTION:

40 GATCTACATT TTGTACATAT TTATATAAAA TTTACCTTTA AGTATTTACT TTAAAAAATT 60
 TAATGGCTTA ACTCGAAGCTT GAAGACACAT ACTTCAACTG TCCTTATTGT CCATTAAANT 120
 GATAATTTN ATTTTCCTNG CTTTATAGA TTTNNCTATA TAGGAATCAA GATTANGAA 180
 ATTTTGCAAT AAAANTAGTG TACCAATGCT TCATATACGT TAGTTATTTG CTATTATGTA 240
 45 GGGAAAGAGGA TTGTN 255

SEQ ID NO:3483

SEQUENCE LENGTH:255

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04094

SEQUENCE DESCRIPTION:

50 GATCTGAAAT NAGAAATATC CAACATTGCA CGAGTATCTT TTTTTATNCC TCCACAGACT 60

CCGCCAGAGA CACCTAGTCC TGATGAAACG TCTGCTCCTT GTCCTAATAT TCATATCAAC 120
 AGCACCATTC CTGGCATTCA CATTTTAAAA ATTATGTGGA AGTGGATAGG AGAACTGCAG 180
 CTGTCAATAG CCTAGGGCTG AATTTTGTG AGNTAANTAA NATAAATCAT TCATCCTTTT 240
 TTTTNGNTTT ATAAA 255

SEQ ID NO:3484

SEQUENCE LENGTH:253

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04095

SEQUENCE DESCRIPTION:

GATCTAGGTG GTTTGTAAT GTGCATTACT GACTGCATAT GTTTGTGTAT GTGTAAATGT 60
 GGGCTCCCTG TTAAGTGGGG CTCATGGATA CGAGGCCTGA GGAAGTGTGG CTTGCTAGTC 120
 TGTTACGTTA ACATGCTTTT CTAAAATTGC TTCACGTGTT AATTCATTTA CTCCTGCATT 180
 CATTGACTGT TTTTGTCTT TTCCATTAC TTTGTACTTA TTTTTCAT TAAATTTG 240
 ATTTATTTG AAA 253

SEQ ID NO:3485

SEQUENCE LENGTH:251

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04096

SEQUENCE DESCRIPTION:

GATCCTAGTT CCTTCCTCC CGAGTGATAC CCATGAACTG CCAGTAGAGG CTGCTATCGT 60
 TCCATGTGTA AGGAATGAAC TGGTTCAAGG CGCGTCTAC CCAGTCATT TCTTTACCTT 120
 ATACTAATTC TTCCTGAATA ATGTCTCAG TTTCTTGAGG AGACTCCTAG TTTTGGTTTT 180
 CAAATTACTT GGAGGGCTGC CTAGGAATCT ATCTCCCTCT GAAATAAAGT TTCCTCATCT 240
 TCCACNNTAA A 251

SEQ ID NO:3486

SEQUENCE LENGTH:249

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04097

SEQUENCE DESCRIPTION:

GATCATACGG CCTTCCAGGA GACGCTGGGA TGTAAGATAC TCTTGGAGGN TGGCTCTGAA 60
 CTCGGGTGTC TGAATCACAG GGCAAGGGTA GGCCTGGGCT GTGGCTAACA GCAGAGTCAC 120
 TTCCCTGGCC TAGCTTGGGG ACCTGGGGAG GAGGAGGTAG CTCTGGACAC CAGGGTTCTT 180
 CCCATTGTGG GAGAGTNAGT TTTTAGGGG GAGACCTGTC CCCAGATTA AAGAACTGGG 240
 AGCCCTAAA 249

SEQ ID NO:3487

SEQUENCE LENGTH:248

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04098

SEQUENCE DESCRIPTION:

5 GATCAAAGAA GAGAGTAAAG CTATGTCTTC AATTTAATTT CAATACCTGA TTTGTACTTT 60
 CCTTGAAAGC TTTACTTTAA AATACCTTAC TTATAGGCCT GGTGTCATGC TATAAGTATG 120
 TACATACAGT TTCACCTTCA AAATAAAAAA AAANTCCCTA AAANCTCTCT ATACTCTCTA 180
 TAACANTNCT TTATCANGAN CTCTGGNCAA TGGTATTATT TNGGANANTC ATGGTGATGT 240
 ATTTNTNN 248

SEQ ID NO:3488

SEQUENCE LENGTH:245

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04099

SEQUENCE DESCRIPTION:

10 20 GATCTGTGTT GTAGAACATG AGGGTGTAAG CCTTCAGCCT GGCAAGTTAC ATGTAGAAAG 60
 CCCACACTTG TGAAGGTTTT GTTTACAAA TCACTTGATT TAACACACTC AGGTAGAATA 120
 TTTTAATTTT TACTGTTTTA TACCCAGAAG TTATTCTAC ATTGTNCTAC AGCAAGAATA 180
 TTCATAAAG TATCCCTTTC AAATGCCTTT GAGAAGANTA GANGAAAAAA AGTTTGATA 240
 TATTN 245

SEQ ID NO:3489

SEQUENCE LENGTH:246

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04100

SEQUENCE DESCRIPTION:

25 30 35 GATCCTGATN ATATTGGCA GCTGTCCTCC AGTCTTAAAA GGTTTGATGA CAAATACACC 60
 TTGAAGCTGA CCTTCATCAG TGGGAGAACA AAGCAGCAGC GGAAGCCGA GTTCACAAAG 120
 TCCATTGCTA AGTTTTTTTG ACCACAGTGG GACACTGGTC ATGGATGCAT ATGNGCCTGA 180
 AATATCCAGG CTCCATGACA GTCTTGCCAT AGAAAGANAA ATAAAGTAGC CACTTCTANA 240
 AGTAAA 246

SEQ ID NO:3490

SEQUENCE LENGTH:239

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04101

SEQUENCE DESCRIPTION:

40 45 GATCCTGGGT ACTGAAAGNC TTAGGGAAGC TGGCCTGAGA GGGGAAGCGG CCCTAAGGGA 60
 GTATCTAAGA ACAAAGCGA CCCATTGAGA GACTGTCCCT GAAACCTAGT ACTGCCCCC 120
 ATGAGGAAGG AACAGCAATG GTGTCAGTAT CCAGGCTTTG TACAGAGTGC TTTTCTGTTT 180
 AGTTTTTACT TTTTTTGTTT TGTTTTTTTA AAGATGAAAT AAAGACCCAG GGGGAGAAA 239

SEQ ID NO:3491

SEQUENCE LENGTH:239

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04102

SEQUENCE DESCRIPTION:

GATCTGGGGA AAGGAGAGAC CATGGTGTGA ATGTAGAGAT GCCACCTANC TCTCTCTAAG 60
GCAGGCCTGT GGATGAAGGA GGAGGGTCAG GGCTGGCCTT CCTCTGTNCA TCANTCTGCT 120
AGGTTGGGGG CCCCGNCCN NCCATACCTA CGCCTAGGGA GCCCGTCCTC CAGTATTCCG 180
TCTGTAGCAG GAGCTAGGGC TGCTGCCTCA GCTCCAAGAC AAGAATGAAC CTGGCTGTN 239

SEQ ID NO:3492

SEQUENCE LENGTH:244

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04103

SEQUENCE DESCRIPTION:

GATCTGTGTT TCCTCCCCAG TCATCTTTCT TGTTCAGAG AGGTGGGGCT GGATGTCTCC 60
ATCTCTGTCT CAACTTTATG TGCCTGAGC TGCAACTTCT TACTTCCCTA CTGAAAAATA 120
GAATCTGAAT ATAAATTTGT TTTCTCAAAT ATTTGCTATG AGAGGTTGAT GGATTAATTA 180
AATAAGTCAA TTCCTGGAAT TTGAAAGAGC AAATAAGAC CTGAGAACCT TCCAGAATCT 240
GAAA 244

SEQ ID NO:3493

SEQUENCE LENGTH:235

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04104

SEQUENCE DESCRIPTION:

GATCCATAAA AGATTGTATT TTTATTACTA TTTAAACAAG TGATTAAATT TAGTCTGCAC 60
ANNAGCAAG GGTTCACATG CATTCTTTA TACTGCTGGA TTTTGTGTG CATCATTTAA 120
AACATTTGT ATGTTTCTNC TTATCTGTGT ATACAGTATG TTCTTGAATG ATGTTTCAAT 180
GTCAGGAGNN CTGTGAGAAA TAACTATGT GGATACTGTC TGTTTATATT ATAAA 235

SEQ ID NO:3494

SEQUENCE LENGTH:233

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04105

SEQUENCE DESCRIPTION:

GATCGACTGT AAATAGAGGA CTTCTGGAAC ATTCCAAATA TTCTGGGGTT GAGGGAAATT 60
GCTGCTGTCT AAAAAATGCC AAGGTTGGAC AGGCGCTGTG GCTCACGCCT GTAATCCCAG 120
CACTTTGGGA GNCTGAGGTA GGAGGATTGA TTGAGGCCAA GAGTTAAAGA CCAGCCTGGT 180
CAATATAGCA AGACCACGTC TCTAAATAAA AATTANTAGG CCGGCCAGGC AAA 233

SEQ ID NO:3495

SEQUENCE LENGTH:243

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04106

SEQUENCE DESCRIPTION:

GATCATGGAG ACCTGGCTGG TAGCTGTAAC AGAGATGGTG GAGTCCAAGG AAACAGCCTG 60
TCTCTGGTGA ATGGNACTTT CTTTGGTGA CACTTGGCAC CAGCTCTGAG AGCCCTTCCC 120
CTGTGTCCTG CCACCATGTG GGTCAATGT ACTCTCTGTC ACATGAGGAG AGTGCTAGT 180
CATGTGTNCT CCATTCTTGT GAGCATCCTA ATNNNTCNNT TCCATTTTNA TGACAGGANG 240
AAA 243

SEQ ID NO:3496

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04107

SEQUENCE DESCRIPTION:

GATCCAGAAC TGAGGTCACT GGGTTCTAGA ACNGNNACAT TTACCTCGAG GCTCTTCCAT 60
CCCCAACTG TGCCCTGCCT TCAGCTTTGG TGAAAGGGAG GGCCCTCAT GTGTGCTGTG 120
CTGTGTCTGC ACCGCTTGGT TTGCAGTTGA GAGGGGAGGG CAGGAGGGGT GTGATTGGAG 180
TGTTGCCGA GATGAGATGA AAAAAATACA TCTATATTTA AGAATCCCAA A 231

SEQ ID NO:3497

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04108

SEQUENCE DESCRIPTION:

GATCTGCAGC CAGGCCTTTC TGAAGNGTT ATTCTGNTAA AAATGGTCTN AGTTNTCTGA 60
AAAGCCAGCT CTTGAACCTC TTCACAACAG TATCAACACT GGCTTCTCCC GGTTCATNTT 120
ATGCGTGCCA GAAGTCAGTG GTAACNTCTG CAGGGCTTAA TACATTAGTG GTAACGGTT 180
TAAAAACAA AGACTGTAAG CCTGTGTGTG CCACTGNNNG CTTCAACNGN N 231

SEQ ID NO:3498

SEQUENCE LENGTH:224

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04109

SEQUENCE DESCRIPTION:

GATCCCAGTT TGCAGCAAAC CCCACACCCC AGCTCACACA GCAAAAACAA TGGACAGGCC 60
CAGAGGGTGA AGCAAACAGT GTCCCTTCTG GCTGTNITGG AGCCTCCCA GTAACCACCT 120
ATTTATTTNA CCTCTTCCC AACCTGGAG CATTATGCC TAGGCTTGTN AAGAATCTNT 180
TCAGTCCCTC TCCTTCTCAA TAAAAGCATC TTCAAGCTTG TAAA 224

SEQ ID NO:3499

SEQUENCE LENGTH:294

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04110

5 SEQUENCE DESCRIPTION:

GATCGGGAAC AAGCACGTTG TACCCCTGGC TGGACATGGC CAAGACACAA GGCATTCCAC 60
 GGC GGCAAGC TGACCGCACA GCAGTCTGGC TTGATTTTCA GCCGTCATCA TTGGGTTCTG 120
 TTTTGACAGC TCTGCTGCCC ATAGGGACTG CGACTGGGNC CAGGTCAACC ACGCCAGGGG 180
 10 GGTGTACCA GCCTTTTCTT TTTTNCCTT TTTTNTTTT TTCCCCCTA AAGTTGTNNN 240
 AAAGCNAANC CNTGGGAATA ATGTTTNTT TGGANTNAAA CCCANNATTT CAGN 294

SEQ ID NO:3500

SEQUENCE LENGTH:221

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04111

SEQUENCE DESCRIPTION:

20 GATCCAAGTT TGATAACATT GGCATGAATG CCATGGCTAA CAAAGATAAT GCAAGTNTCA 60
 AACAGCTTAG ATGGGAGGCT GAACGTGATG ACTGGCTACA CAACAGAGAT GCAAAAANGTA 120
 TCATCAGGAA AAGGAAACAT TTTAAAANGA AGAGGNTTAA AACCCTCAAA AAANCTAAAA 180
 NCCAAGGGAA ATGAGTTATT ANTGTAANTN ATAGNTTAAN N 221

25 SEQ ID NO:3501

SEQUENCE LENGTH:220

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

30 CLONE:HUMGS04112

SEQUENCE DESCRIPTION:

GATCTAATTG TATTAGTATT GTGAATAATC ATGTGAAATG TTTTGAGACA GAGTACTATA 60
 TTTGTGAATA TAATNNTATG GTTTTTTCA CITAGAACCT TTCTGTGTGG AAAACTAAGA 120
 35 AAATTGCTTT CTGCTGTATA ATCTGGCATT CATTGTAGAT TAAAGCTTAT TTTNCTGTGA 180
 ATAAAACGNN NNCAATAAAA TACTATTCTT TAAAATTAAA 220

SEQ ID NO:3502

SEQUENCE LENGTH:226

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04113

SEQUENCE DESCRIPTION:

45 GATCTGGACA CCCTGTCTCC TGAGGAGCGC CGGGCCAGGC TGCGGAAGTN TGAGGCTCAG 60
 CTCCAGTCGA GGAAGGAGTA CGAGCAGGAG CTCAGTGATG ACTTGCATGT GGAGCGCTAC 120
 CGACAGTTCT GGACCAGGAC CAAGAAGTGA CCGTGGCTCC AGCCACCCCG GGACATTGCT 180
 AAGATGGGAG GGCTGTTCTT AATNACTCG TTCTTGAAGC TGCAAA 226

50 SEQ ID NO:3503

SEQUENCE LENGTH:215

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04114

5 SEQUENCE DESCRIPTION:

GATCATGCCG AAAAAGTGGC GGAAAAGCTA GAAGCTCTCT CGGTGAAGAN GANNCCAAGG 60
AGGATGCTGA GGAGAAGCAA TAAATCGTCT TATTTNATTT NCTTTTCCTC TCITTCCTTT 120
CCTTTTTTNA AAAAATTTTA CCCTGCCCTT CTTTTTCGGT TTGTTTTTAT TCITTCATTT 180
10 TTACAAGGGA CGTTATATAA AGAAGTGAAC TCAAA 215

SEQ ID NO:3504

SEQUENCE LENGTH:213

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS04115

SEQUENCE DESCRIPTION:

GATCTNTTCT TAATGTACAT AGTGCTAACA TGAAGACCTT TTTNTGCACT ATATGCAAAC 60
20 AGGGTAACATA ACTAAACAAA AGCCACTTTC AATCTTCAAT CCTTGAAGGT ATATCTAGGT 120
TTATNACAGT AATTGNTTNT ACATTNATG GTGCCTAGTA TTGACAAAAT GTTATTTCCC 180
TACATTAAAC ATGACTCCAT AGACCTTTTC AAA 213

SEQ ID NO:3505

25 SEQUENCE LENGTH:212

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04116

30 SEQUENCE DESCRIPTION:

GATCTAATGT AAAATCCAGA ACTTGGACTC CATCGTTAAA ATTATTTATG TGTAACATTC 60
AAATGTGTGC ATTAATATG CTCCACAGT AAAATCTGAA AACTGATTT GTGATTGAAA 120
GCTGCCTTTC TATTTACTTG AGTCCTGTAC ATACATACTT TTTTATGAGC TATGAAATAA 180
35 AACATTTNAA NCTGAATTNN TTAACNTGA AA 212

SEQ ID NO:3506

SEQUENCE LENGTH:211

SEQUENCE TYPE:nucleic acid

40 TOPOLOGY:linear

CLONE:HUMGS04117

SEQUENCE DESCRIPTION:

GATCAGAGAT GCTGTTATC AGTCCAACA AGATGGCCTA GAAATCGCAT TCTCACCTCG 60
45 CCTTGCTGCT GCTTTAATTC CAAGTTCTAT TTCTCCCTT ATAGTTTCT ATGGGAATGA 120
GGCGGATACA GGAAACACCC TATCTCCTCT GTATTTTGT AGTGGAAATTT CTATTTAAGG 180
GGCTCATTAA AGCATAGTAT TTATACACAA A 211

SEQ ID NO:3507

50 SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS04118

SEQUENCE DESCRIPTION:

5 GATCGAGATN CAAAGCCACA TNCTCTCTCA CCAAGNTAAA CTATTANAT TAATTGTTAG 60
CGGTGTATG CTGCTTTCTT CTTTGACAAG GCCATGACTA AGAAGGCTCT AAGTAAAGGA 120
AGAATCATTT ATTCCATAGT CAGCTAACTG GTAGCAAAGC CTTCTNTTCC AAGACACCAA 180
GGGAGAGGGG AGGACATAAA TTATGCAAA 209

10 SEQ ID NO:3508

SEQUENCE LENGTH:208

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15 CLONE:HUMGS04119

SEQUENCE DESCRIPTION:

20 GATCCCTCT TNAGTCNCT GCCCTTCCA AGGACACTAA TGAGCCTGGG AGGGTGGCAG 60
GGAGGAGGGG ACAGCTTCAC CCTGGGAAGT CCTGGGGTTT TTCCTCTTNC GCCCCTTGTG 120
GTTTCTGTTT TGTAAATTAA GAAGAGCTAT TCATCACTGT AATTATTATT ATTTTCTACA 180
ATAAATGGGA CCTGTGCACA GGAGGAAA 208

25 SEQ ID NO:3509

SEQUENCE LENGTH:322

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04120

SEQUENCE DESCRIPTION:

30 GATCCAAGCA TATAAAAAGC CTNTATATTT TTNAAAAACA CATCTTAAC TACAGCTTTA 60
CGATATTATA AAAGTTGAAT GGTTCCTCTT GGTAAAGATA TTTGCTTACA AGTGCTAGGA 120
AATAACTNNC TGATAGCTGC GTTAACATAC TTNGTTTTGC CTAGAGAGGG GCAATAAAAA 180
TGAACCAAAG GATATTTCCA GAAAGGATTA AGAAAGCTGT TTAAGANGGC CATGACTCTT 240
TAGGTGTGTA TGTGTACCTT TCAGCATCCT AGGAATTTTN ATACTAAAAG CAAAATGTTT 300
35 TTCCAGTTA GTCTTCTTCA GN 322

40 SEQ ID NO:3510

SEQUENCE LENGTH:205

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04121

SEQUENCE DESCRIPTION:

45 GATCCGNCCA CCTNGGCCTC CCAAAGTGCT GGGATTACAG GTGTGAGCCA CCGTGCCCGG 60
CCTCTTTTAA TTTATNCCTA AAATATTACC TTGAGGCCAA ATNCTGCGCT TAAGGAGAAT 120
GTGCACCAAG TGCTGGGGTG GGGGCTGGTT ATAAACGAGG CCACAAATNA TGCTTGTAAG 180
TAAATTGTGT GGTCAAATC TGAAA 205

50 SEQ ID NO:3511

SEQUENCE LENGTH:205

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04122

SEQUENCE DESCRIPTION:

GATCCCTCAC TTTATTTATA TTCCCACTAT AACCAGTAAG TTCATTTTCAT AGGCCCTATC 60
ATGCATTAAT CATTGNATGN NAGNAGTTAA TGAAAACTTT TCCTGTTACA ACGCCCATTG 120
CCGGCAATGA ACGTACCAAA ACCGCCAAGG AAGTCATTGT TATTGCACAA TACATGAGGA 180
CCTGGAGCTT TTCCAAAAGC TTAAG 205

SEQ ID NO:3512

SEQUENCE LENGTH:204

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04123

SEQUENCE DESCRIPTION:

GATCTAAAAC GGCTATTTAA TATGTTACAA GGCACCTGAG TATGGTTGCA TGTCCAAATA 60
TAAATGTTTT TAAATTAACCT CTAACATTTG GTTATAAAG TTTANCCATA ATAATAGAAT 120
TTTTAAACA CGNTTGTNTG GTTTAATCTT AGCATATTTT TCCAACATAA AAAGCTCAGT 180
ATTGCTCTGN GTTCTCAGNG GAAA 204

SEQ ID NO:3513

SEQUENCE LENGTH:201

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04125

SEQUENCE DESCRIPTION:

GATCTCTCTC ATTCATTTCA ATGTATTTTT ACTTTAAGAT GAACCAAAAT TATTAGACTT 60
ATTTAAGATG TACAGGCATC AGAAAAAGA AGCACATAAT GCTTTTGGTG CGATGGCACT 120
CACTGTGAAC ATGTGTACCC ACATATTANT ATGCAATATT GTTCCAATC CTTNCTAATA 180
CAGTTTTTTA TAATGTTGAA A 201

SEQ ID NO:3514

SEQUENCE LENGTH:200

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04126

SEQUENCE DESCRIPTION:

GATCCAATTT ACATCCACAT TTTAGGTNCA ACAGCAAGAA GTTCAGAGAG AGATTTCCTCA 60
ACCAGACATT GGGTCACTCA CTGGTCACCT TGCCAGTNCA TTTTATTAGA AGGGAATCTG 120
TTGTAGCAAA TGGAATAAA CCTGGGTTTC TATAGACCCA GAACTGAAAA AATAAACATC 180
GTGCTGTTTT TAATTNGAAA 200

SEQ ID NO:3515

SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04127

SEQUENCE DESCRIPTION:

5 GATCTTAGTT TTCITTTGTT TATTCCCGAG CTCATTTTTT TCTTCTGGTC AGTTTTTTTA 60
 AGGGGGGGTG TTGTGGTTTT TTGTTTTTGT TTGCTTCTG AGAAAGCATT TGCCTTTCTT 120
 CCTCTCCCAA CATAACAATC GTGGTAACAG AATGCGACTG CTNGATTAC CGATGTATTT 180
 AATGTAAGTA AAAAAAGGAA AAAAAAGAA 209

10 SEQ ID NO:3516

SEQUENCE LENGTH:198

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15 CLONE:HUMGS04128

SEQUENCE DESCRIPTION:

20 GATCCATTCC CTGCAACTNA AGATTCTAAG GAACTGGGTT TCTCAGTATA CAATGGGAAT 60
 GGTGGNAGG AGGTAAAGAG TAGAAGACAG TATCAAGANT CCAGAGCCCA GCACCTGTAG 120
 TCCTAACTAT NCANATTCCT TGAGCCAGG AGTTTGAGTC CAGCCTGGAC AACATATTGA 180
 GACCCCATC TCTCTAAA 198

25 SEQ ID NO:3517

SEQUENCE LENGTH:191

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04129

SEQUENCE DESCRIPTION:

30 GATCATGAAT AGGAGCCCAT GCTAGAAGTA CATTCTCTCA GATTGAAAC AGTGAAATAT 60
 GATGTATTC TGAGCTAAAA CTAACTATA GAAGACATTA AAAGAAATCG TATTCTTGCC 120
 AAGTAACCAC CACTTCTGCC TTAGATAATA TGATTATAAG GNAATCAAAT AAATGTTGCC 180
 TTAACCTCAA A 191

35 SEQ ID NO:3518

SEQUENCE LENGTH:191

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS04130

SEQUENCE DESCRIPTION:

45 GATCCAGGCA GCCAAGAACT TGATGAATGC TGTGGTGCAG ACAGTGAAGN CATCCTACGT 60
 CGCCTCTACC AAATACAAA AGTCACAGG TATGGNTTCC CTC AACCTTC CTGCTGTGTC 120
 ATGGAAGATG AAGGCACCAG NGNNAAGCC ATTGGTGAAG AGAGAGAAAC AGGATGAGAC 180
 ACAGACCAAG N 191

50 SEQ ID NO:3519

SEQUENCE LENGTH:187

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04131

SEQUENCE DESCRIPTION:

5 GATCTCCCC AAAGATTCCA GCGGGTGCAA CCCTGCNTGT TCGAGGTGGA GCTGCTCAA 60
 ATAGAGCGAC GAACTGAGCT GTAACCAGAC TGGGGAGGGG CAGGGGGAGA GGCCCCCATC 120
 AGGGACCAGA CTGTTCCAGA AAAAAACAA AAAACANAAA CAAACAAAA AACACTTAAA 180
 AGCCAAA 187

SEQ ID NO:3520

SEQUENCE LENGTH:184

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04132

15 SEQUENCE DESCRIPTION:

20 GATCGAGACT CTNCCAGAAA ACAAACAAA ACAAAAAAAA ATCCGTTTCT AAGGACGGCG 60
 GGGATTCCGT TCGAGCCCGT GGCTGCTCTG TTTTGTGTTG CTTTCTTGGT ATATAATCCT 120
 ANAAATAAAA GGGTAATATA AATATTTNAG AAGAGGGAAA TTGCTGAAGA GTAGTAAGGG 180
 CAAA 184

SEQ ID NO:3521

SEQUENCE LENGTH:177

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04133

SEQUENCE DESCRIPTION:

30 GATCAGATGA CCATTGAGGA CTTGAATGAA GCTTTCCAG AAACCAAATT AGACAAGAAA 60
 AAGTATCCCT ATTGGCCTCA CCAACCAATT GAGAATTTAT AAAATTGAGT CCAGGAGGAA 120
 GCTCTGGCCC TTGTATTACA CATTCTGGAC ATTAAAAATA ATAATTATAC AGTTAAA 177

SEQ ID NO:3522

SEQUENCE LENGTH:220

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04134

SEQUENCE DESCRIPTION:

40 GATCCCATCC GAAGCTCAGG GTATGGAGAG CGGGGAGCTC CNCCAAAGAT TCCAGGCGGT 60
 GCANCCTGGT GTTCGAGGTG GAGCTGCTCA AAATAGAGCG ACGAACTGAG CTGTAACCAG 120
 ACTGGGGAGG GGCAGGGGGA GAGGCCCCCA TCAGGGACCA GACTGTTCCA AAAAAAANC 180
 AAAAAACAAA ANCAAACAAA AAAACACTTA AAAGCCCAAA 220

SEQ ID NO:3523

SEQUENCE LENGTH:172

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04135

SEQUENCE DESCRIPTION:

GATCCTACCT AAGGGGCACA ACTAGTAAGG GAGTAGAGCT GAGATTGGCT CCAGAGTTCT 60
 TGTTTTCAGC CACCATTTTA TGCTGCCTCT CCAGTNATTT TTTTCCCAT TTTCTTCAGT 120
 NTTTCTATAG CAGAGATTG ATAATAAAAA GAAAATCCTA AACAATGAGA AA 172

SEQ ID NO:3524

SEQUENCE LENGTH:169

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04136

SEQUENCE DESCRIPTION:

GATCGCACTG CGCAGGGGTG CCACGGAGCT CACCCACGAG GACTACATGG AAGGCATCCT 60
 GGAGGTGCAG GCCAAGAAGA AAGCCAACCT ACAATACTAC GCCTAGGGCA CACAGGCCAG 120
 CCCAGTNTC ACGGCTGAAG TCGCAATAA AAGATGGTTT AGGGTCAAA 169

SEQ ID NO:3525

SEQUENCE LENGTH:169

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04137

SEQUENCE DESCRIPTION:

GATCTCAGGC ATCGGATTAT TTCTCCTGTA AATATTTTCTAG AATGTATCTN TCCAAGATGA 60
 GAGCTCATTAA AAGACAATT ACAAGCTTA TCACATCCAA AAGANTTATC AATAATTTTN 120
 AAATATTATT AANCGTGTA TAAATNTNCA AAGTNCCACT TGCCTTAAA 169

SEQ ID NO:3526

SEQUENCE LENGTH:165

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04139

SEQUENCE DESCRIPTION:

GATCAAAANG AGTNAANCTA TCCAAAAAAA ATTTGTATAT TTGGGAAAAA TGGATTTTAA 60
 CATAGCTTTT GTATGCAGAT ATAAACTGT AATTATGAAT ATAGTGGGCG TAGATAAACT 120
 CATAAGCTTA AATTCTAAAA ANGAAAAAGC TTATACCANG ATAAA 165

SEQ ID NO:3527

SEQUENCE LENGTH:165

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04140

SEQUENCE DESCRIPTION:

GATCAGCCGA TGACAGAGAT TGTAAGCCGT GTGTGGAAGC GAAAGTTGGA GCCGCCACGT 60
 GCGGGCNCCTG GTGCTTNANC TGTGCTGTAA CGACGAGAGC GGCGAGGATG TCGAGNTTCC 120
 CTATGTCCGA NACACCATCC GCTGACCCCG INTGNTCCTN TAGGN 165

SEQ ID NO:3528

SEQUENCE LENGTH:165

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04141

SEQUENCE DESCRIPTION:

GATCCATTG AAAGTNATTT TGACATAAGG AGTAAGGTTA CTACTGATTC CTACTCAGGA 60

GGCTAAANTG GGAGGACCAC TTAAGTATGG NAGGTCGAGG CTATAGTGAG CCATTACTGA 120

GCCACTGCAC TACAATCTGG GCGACANAGC AAGACTCTGT CTAAG 165

SEQ ID NO:3529

SEQUENCE LENGTH:161

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04142

SEQUENCE DESCRIPTION:

GATCCTGTGT TTGCAACTGG GGAGACAGAA ACTGTGGTTG ATAGCCAGTC ACTGCCTTAA 60

GAACATTTGA TGCAAGATGG CCAGCACTGA ACTTTTGAGA TATGACGGTG TACTTACTGC 120

CTTGTAAGCAA AATAAAGATG TGCCCTTATT TTACCTACAA A 161

SEQ ID NO:3530

SEQUENCE LENGTH:161

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04143

SEQUENCE DESCRIPTION:

GATCAGTCAT CCACCAGGAA CGAAGATTTC CTGAAGAAGA CCTGGTCCCT CTGGAGGTTG 60

CGGTGGCTGA AGGATGCATC ATGTGCTCCT ACCCTGCTCT ACCGCTTTNT TGGGTCACAG 120

AGGCCAAATG TGAGAGCATT GAATAAATAT CTTAAGCTAA A 161

SEQ ID NO:3531

SEQUENCE LENGTH:159

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04144

SEQUENCE DESCRIPTION:

GATCTCGTGA AGCCCGCAAG GACCGAACAC CCCACCCCG ATTTAGACCT GCGGGTGCTG 60

CCCACGTCC CCCACCAAAG CCCATGTAAG GAGCTGAGTT CTTAAAGACT GAAGACAGGC 120

TATTCTCTGG AGAAAAATAA AATGGAAATT GTACTTAA 159

SEQ ID NO:3532

SEQUENCE LENGTH:386

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04145

SEQUENCE DESCRIPTION:

GATCCTTACA GTAGAGGTGA CCCCTGTAAT ACCATCTGCT GCCGTGAGGA CCTGAACTCA 60
 CCTAACCCAA GTCCTGGAGG TTNNNNNGAC ACAAAGGTGG CAGATATCTA CCTAGCATCT 120
 CAGTACACAT CCTATGCCAT AAGTGGTCCC ACAGTACAAG GTGGCCTCCC TGTTCCTCGC 180
 TGGGACCGTT TCAACAAAAC TCTACATCAG GGCATGCCAG AGGTCTACAA CTTTGATTTT 240
 ATTACCATGA AACCAATTTT GAAACTTGAT ATAAAATGNA GGAGGGAGAT GACGGACTAG 300
 AAGACTGTAA ATAAGATACC AAAGGCACTA TTTAGCTAT GTTTTCCCA TCAGAATTAT 360
 GCAATAAATT TTTAATTTT GTCAAA 386

SEQ ID NO:3533
 SEQUENCE LENGTH:391
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

CLONE:HUMGS04146

SEQUENCE DESCRIPTION:

GATCAGATTA AACCATTTGAA GTTGGAAAGTT CATNAGGCTA AGCCTGTNCC AGAAAATCAC 60
 CCACAGTGGG ATACAGCAAT AGAGGGGGAT GAAGACCAGG AGGACAGTGA GGGCTTTGAA 120
 GATAGCTTTN AGGAAGAAGA GGAGGAAGAA GAAGATGATG ACTAAGCAGT ACTCTGAATG 180
 GNCCACAGTG TTTGCACATA TTNCAATTT TTTNCTGTTT TGGAAAGTGA TCATAAACCA 240
 GAAACAGTAC AGAACTGATG TTGNGGGNGG TGTNGTTTTT TTA CTCTAGA NATGGGTGCA 300
 TAATATNACT AGGCAGTGGC GGTGCCTTGG TNCANCCTGN AAAATGTTAA GGCTTTNTTG 360
 AAACCTTTCC AGTNGGGGNT GGTCCNTTNA N 391

SEQ ID NO:3534
 SEQUENCE LENGTH:157
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

CLONE:HUMGS04147

SEQUENCE DESCRIPTION:

GATCCGCCCC ACTCGGCCCT CCAAAATGCT GGGATTACAG GCGTGAGCAT TCAAGTCTGG 60
 CGAGAGAGAT TGTTCCTAGA TGAGGGTGGG GCGGGGTGTC CTTAGCCCAA AGCTTGTGCC 120
 AGTCTCTATC GGAAATAAAT GCCCCCAAAA CCTCAAA 157

SEQ ID NO:3535
 SEQUENCE LENGTH:154
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

CLONE:HUMGS04148

SEQUENCE DESCRIPTION:

GATCTACAGC AAAACACAGC GGGAGAGGTT CGCCTGGGCT CTCGCCATGG CAGGAGAAGA 60
 CTTTGAATTC TAACGACGAG CCGTGTGAA ACTTCTTTTG TATGTGTGTG TGTTCCTTC 120
 ACTATTAAG CAGTACTGGG GAATTTTGTG CAAA 154

SEQ ID NO:3536
 SEQUENCE LENGTH:151
 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04149

SEQUENCE DESCRIPTION:

5 GATCTAGGCA ATGATTAGA GGAAACCTCN TCACAAAAAC CCCAGAGGAA GAATATGACC 60
TGTGTTTCAA ATTTTGCCTT TCTGAAGTAT TTAATAATTAT GTGTATGTTT TTGCTTTGTA 120
TTTTAAAAAGT AAAGCTGCTG TCCTCAAGAA A 151

10 SEQ ID NO:3537

SEQUENCE LENGTH:355

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04150

15 SEQUENCE DESCRIPTION:

20 GATCTATGAA AGCGGGGAGA GGGAACTGA ATATTAATTA TGAGCACAAA TTTGAAGGAA 60
AGAAAACAAA GAACCATTA CTAATCAAGC TTTGAAAGTC CTGCATGTTT GCCTTTATT 120
TTAGTGTTGA CGCCAACATA GACTGTCTAA GGTATTTTTT TCCCCAAACA CTTGAATCTT 180
GGTCGTTGGT ATGTAATCCA CTCTCTAGAG TCCAGTGTAC TTTAGACTTC ATCTGAGTCC 240
AATATATGTA CCACACTACT GTTTTATTAA TGTAAAAACC TTGTAAATGA ATTCAGATG 300
GGTGATTAA GTGAGTCACA AGTCACAAAA CTTTGCTATT CATAGTTTAT CTNGN 355

25 SEQ ID NO:3538

SEQUENCE LENGTH:148

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04151

30 SEQUENCE DESCRIPTION:

GATCTCTGCT TCCTGTACCT TGACATGCAA AAGGCTCTCC TAATACTCCA CATTCAAAC 60
GAAGAGGAAA ATTGAAATCT CTAATGAAGC TGCTGTGTGT ATTTATGANT ATTAATGAAT 120
AAAAACTGCT TGGATGGTTT ACCTTAAA 148

35 SEQ ID NO:3539

SEQUENCE LENGTH:148

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS04152

SEQUENCE DESCRIPTION:

45 GATCAACAAC TNGNTACTCT CGGGAAGACT CCTCTACTCA CAGCTGAAGA AAATGAGCAC 60
ACCCCTCACA CTGTTATTAC CTATCCTGAA GATGTGATAC ACTGAATGGA AATAANTAGA 120
TGTAATAAAA ATTNAGTTCT CATTTAAA 148

50 SEQ ID NO:3540

SEQUENCE LENGTH:147

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55 CLONE:HUMGS04153

SEQUENCE DESCRIPTION:

GATCAGAGTA AACAAAAGGA ATCTCAAAGG AAATTGAAG AAGAACTGT AAAATCCAAA 60
 GTGACTGTTG ATACTGGAGT AATTCCTGCC TCTGAAGAGA AAGCAGAGAC TCCCACAGCT 120
 GCAGAAGATG ACAATGAAGG AGACAAA 147

SEQ ID NO:3541

SEQUENCE LENGTH:146

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04154

SEQUENCE DESCRIPTION:

GATCGTGGCG CATGGCTTGG GGATTAACT ACCCTTGANG AGGACCCTTG TCCCAAACCC 60
 TTCTTGTCT CTCCTCCAAA AGTAGCTTCC TCCAACCCGC AGCCTCTCTG CACACTAATA 120
 AAACATGTGG CTTGGAAGG TTCAA 146

SEQ ID NO:3542

SEQUENCE LENGTH:144

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04155

SEQUENCE DESCRIPTION:

GATCTTTAAG GACAAGTTA TCCAGCATCC AAAAACTTT GGACTAATTG CATCATACTT 60
 GGAGAGGAAG AGTGTTCCTG ATTGTTTTT GTATTACTAT TTAACCAAGA AAAATNAGAA 120
 TTATAAGCC CTCGTCAGAA GGGN 144

SEQ ID NO:3543

SEQUENCE LENGTH:140

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04156

SEQUENCE DESCRIPTION:

GATCTGGGTT TTNATATCTT TATCTTCATT CAGTGAAGCA AGCCAAAAGC NCACATTGT 60
 ATGCNTIAGG TCTTCTTAAA ATGGTATCTG TAAACATGTG TCCAATATAA AANCTATTTT 120
 NAATAAANG TTACATGAAA 140

SEQ ID NO:3544

SEQUENCE LENGTH:138

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04157

SEQUENCE DESCRIPTION:

GATCAGCAAT GAAGAACTGG NCGGACAAAA TTNAACGTTN ATGTAATGGN ATTCCAGATG 60
 TAGGCATTCC CCCAGGTCT TTTCATGTGC AGATTGCAGT TCTNATTCAT TTGAATAAAA 120
 AGGAACTTGG AAANCAAA 138

SEQ ID NO:3545
 SEQUENCE LENGTH:137
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04158
 SEQUENCE DESCRIPTION:
 GATCTAAATG GGCCAGGTG TTTACCTTA TNTNGTTTC TGCTAAATNA TGGAGGTTTG 60
 GGGAGTTCCT TCTCCACTTG TTTGTGGAGG CCTGGGGAGT TTTNNAGAC CCCCAGTAA 120
 ACTNGTTTAA TCCTAAA 137

SEQ ID NO:3546
 SEQUENCE LENGTH:136
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04159
 SEQUENCE DESCRIPTION:
 GATCCTGTGA GAGGTGGTAT TAAAGATGGT CACTGAGATT AAGAAGATTC CTGGTATTC 60
 TCGAATTATG TATGACTTAA CATCAAAGCC CCCAGGAACT ACTGAGTGGG AGTAATAAAC 120
 TTCTTGTCT ATTAAG 136

SEQ ID NO:3547
 SEQUENCE LENGTH:135
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04160
 SEQUENCE DESCRIPTION:
 GATCCTAAAA TNNTCTACTT TTGTNGCCTT ATCAGTNCCT TGCAATCTGC CTGTGGTTAT 60
 CAGCACTTAA AGCACAATTT TGAAGGGGAA AAAAATGATA ATCACCTTAG TCCCAAAGAA 120
 ATAATTGTC ANNCN 135

SEQ ID NO:3548
 SEQUENCE LENGTH:134
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04161
 SEQUENCE DESCRIPTION:
 GATCTGCACT GGCTGGGAGT GGGGAGGGCG TGGAGACAGT CTACGGAAAG CGCTANAGGA 60
 CCCCCGAGAG GGTGCAGTGG AGCCCTGAGC ATTGTAATAT GCGGCCCAGC CTATAAACAG 120
 CCTCCGTGCT TAAA 134

SEQ ID NO:3549
 SEQUENCE LENGTH:134
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04162

SEQUENCE DESCRIPTION:

GATCCTTTGC TGTAAGTNG GAGAGACCAG TCCCAAACAG AGGGGAATTT TAAGCCCTTC 60
 TCATCACCCA ATGGATGTT TTTGCTTATA GCAAATTCCT GCAAAATAAA TAAATAAATA 120
 TTTGCAAAAC TAAA 134

SEQ ID NO:3550

SEQUENCE LENGTH:133

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04163

SEQUENCE DESCRIPTION:

GATCTATGGG AAGATACTTA TTTTCTGAG GTCCTTATGT CCTGTCATAT AATTAAAGAC 60
 TCAAGAGAAT TTATGTGAAA TGCTTCTGT ATGCCCAAAT CTTTAGATTA AAATTATATA 120
 GCTGCTCCTG AAA 133

SEQ ID NO:3551

SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04164

SEQUENCE DESCRIPTION:

GATCTCAGTT CCNTAAAAA TGATAAAAT TTTTCATGTA TATTACATAT CTACCTACCA 60
 GAAATCCTTT TTACAATTT ATATAAATC ATTTAAGAC CTTTTGAAA TAAATAATGC 120
 AAATGAACAA AA 132

SEQ ID NO:3552

SEQUENCE LENGTH:154

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04165

SEQUENCE DESCRIPTION:

GATCACGGGG TGGNAGGNAA CCGNGGCGTC CCTGCNTGGG GCCCATGGGT GANACACTCC 60
 AGTACTGAGA CCTAGAGTCC AGATGCTTGT AGGAGCCAAG TCGTGTTCTA AGTATTTATT 120
 TAAAACAAA GAATCACGTT TTCCCATTTG TAAA 154

SEQ ID NO:3553

SEQUENCE LENGTH:213

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04166

SEQUENCE DESCRIPTION:

GATCCTTAAT TGTAGCCTTT GAAGGATGCC CTGTGTAGAT TATTCAGTGC CACAAATTGA 60
 AAGCTTCCAT GTTTAATNTT ATCCTCTTGC TATATAAATA AAGCAAATAT ATTTAGGCCA 120
 GGGTCTCACT GAGGGGGAGC TGTCTTGTCA TCTTTTAGAG TAACTATTC TATAAACATA 180
 TGCAAACAGC CCTAAATAAA TCTAAAGTCT AAA 213

SEQ ID NO:3554

SEQUENCE LENGTH:125

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04167

SEQUENCE DESCRIPTION:

GATCCCAAGG GCCCAGATAA CGCCCCAAC TTCTTGGGGT TCACACGGT CCTGAGACAT 60
CTGGGAACTG CCTCTGCCTG GNCCAAAGCT ATTCCATTAA AACTTTATTG CTGTNCTTAC 120
TCAAA 125

SEQ ID NO:3555

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04169

SEQUENCE DESCRIPTION:

GATCTGTGTA CAATTTTNGT CACTANGACT TTCCTCCAAG AACTAAGCCA ACTTGATGTN 60
NCAAAGCACA GCTGTATATA ATGGTGATGT CATAATAAAG TTGTTTTATC TTTTAAGTAA 120
AAGTAAA 127

SEQ ID NO:3556

SEQUENCE LENGTH:126

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04170

SEQUENCE DESCRIPTION:

GATCAAGGAC TCTGGATAAT TGGCATAACA TCCTGGAATA GCTGAAACAG AGATATTATT 60
CTCTGCTGTC CTCTGTTGTC TTTGTCTTTT CACGTCTTAA TAAAAGTGCT GGTGACAAGA 120
GTGAAA 126

SEQ ID NO:3557

SEQUENCE LENGTH:123

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04171

SEQUENCE DESCRIPTION:

GATCAGAGCC ATACCCCTCT TCACCAATGG GAAGTCAAGA CACCTATGGG TAAAAGTTCT 60
CTCTGATGCA TGAAAACCTCA GAGTGATAAA GTAATTTTAA AATAAAAAATT TGGAGAAAAGC 120
AAA 123

SEQ ID NO:3558

SEQUENCE LENGTH:121

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04172

SEQUENCE DESCRIPTION:

5 GATCTAAAAG TTTTCACACA TAAATTTTCAT TAATTGAAA GATTATTTT AAACGCGATA 60
 GGTCCACTTG CCTCTAAATA AAATNAACCT AAAATAAAAA CAAACTATAC TTTGTGAGAA 120
 A 121

SEQ ID NO:3559

10 SEQUENCE LENGTH:121

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04173

SEQUENCE DESCRIPTION:

15 GATCTCCCC AACCCACAA AATGCTTAAA AGATAACTTA GCTCTTTNTT CAGGGCTCAG 60
 TCCTTTGGAT GTAATCCGAC TAGGCCAGTN AACCTAAATA ATAAATATCC TCCTCAACAA 120
 A 121

20 SEQ ID NO:3560

SEQUENCE LENGTH:120

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04174

SEQUENCE DESCRIPTION:

25 GATCCTGAGT TTTCTGGGAC AATTCCAGCT TTAATCAATA CATTTTGTTA AATGTGCCAT 60
 AAAATGAGAC TTTTACGCC TTTATAAGGC CTTAGATGTA AATAAACTCA CCCAAACAAA 120

30 SEQ ID NO:3561

SEQUENCE LENGTH:119

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04175

SEQUENCE DESCRIPTION:

35 GATCATTGTA TTCAGAGATT GTAAATGAAA AAATATAGAA ACTATTTAGT TTTGGTAGAT 60
 TTTTCTCTG ACAATGTGAC CAGACTGAAT TTCCTCATAA AGAAAAATG GCGTGCAAA 119

40 SEQ ID NO:3562

SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04176

SEQUENCE DESCRIPTION:

45 GATCCCAGCA TTTCCATCG ACTTGTAAT GTTCTGCTA CCTGACAATC ATCGCCTTGA 60
 GTACTGGGAC AACCTTTGAT TACTCATTAT ATCCTCAATA AATATTTGTT GAACTAAA 118

50 SEQ ID NO:3563

SEQUENCE LENGTH:118

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04177

SEQUENCE DESCRIPTION:

GATCCTGGCT AGANTGNTAA TTAAGATAT TTAATTGAA GCACCATTN ANTGTTCGTA 60
CTAGTAGAAA ATGATGTGAA TTCNTTCT GTTCGGCTCC TATTTTCCTC ATCATTN 118

SEQ ID NO:3564

SEQUENCE LENGTH:82

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04179

SEQUENCE DESCRIPTION:

GATCATAGTC GGGCATACTT ATCTATATCC NTAACCTCTA TATCTTTAAA TAAATGTGAG 60
NACTGTTCTC ATGGAGANGA AA 82

SEQ ID NO:3565

SEQUENCE LENGTH:214

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04180

SEQUENCE DESCRIPTION:

GATCTAAAGC NTTTTGTCA GATTATTTAA TATNATGACT TCATGCTTTA TTATGCCTTA 60
TNATGGCTGA CGTATTACTG TGGTGAAACA AAATATCTTT AAAAGTTAAA ACATCCAGAT 120
ATATAAGCAA TTTNCCCTA AGGATAAAGT ACCTTTAAGC ATGAGTGTAT CACAGCTTTC 180
ATTAGGNAAG CTTTTCATTA CATACTTGTT TAAN 214

SEQ ID NO:3566

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04181

SEQUENCE DESCRIPTION:

GATCCCNAA TGTGTATGAA TGAAGAGGC TTTGTAAAT AAGGGACGTT TGTGTAATA 60
AAGTTATTTG ATGGGGTCAA AGAAGCCATA TGTGATTGA AA 102

SEQ ID NO:3567

SEQUENCE LENGTH:101

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04182

SEQUENCE DESCRIPTION:

GATCCTCTCC TTAGTCTTAG CTCATGGGGC TCTTTATAAA GGAGTTGGGG GGTAGAGGCA 60
GNAATAATNGG AACCGAGCTG AANGCAGAGG CTGAGTTAGG N 101

5 SEQ ID NO:3568
 SEQUENCE LENGTH:99
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04183
 SEQUENCE DESCRIPTION:
 GATCTGCAGT GCTTCACTGG AAATAATTTA TTCATTGCAG ATACTTTTAA GGTGGCATT 60
 10 NATTCATTTC CTGTGCTTTA AATAACAAA TGTACCAA 99

15 SEQ ID NO:3569
 SEQUENCE LENGTH:97
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04184
 SEQUENCE DESCRIPTION:
 GATCACCTG GGCACATGTT GTCAGGACCT CCTGGGGTTG TGTCATGGAT GCGTGTCTC 60
 20 AACCTTAGCA AAATAAACTT TCTAAATTAC TGAGAAA 97

25 SEQ ID NO:3570
 SEQUENCE LENGTH:95
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04186
 SEQUENCE DESCRIPTION:
 GATCTTCAGT GTGTCTGCAT AAGCTAACTT AAGATGAATT TAAGTACANN TTTCTGAAAT 60
 30 ATTTCTATTG AAATAAATTA CTTAAATTA NAAA 95

35 SEQ ID NO:3571
 SEQUENCE LENGTH:94
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04187
 SEQUENCE DESCRIPTION:
 GATCTTTGTG AATTCTATGA ATGTATTAAG TTATCATATG TACTCCCCAA AATAGGTACA 60
 40 TCTATTATGT ATCAATAAAA AANTTTAAAA CAAA 94

45 SEQ ID NO:3572
 SEQUENCE LENGTH:93
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04188
 SEQUENCE DESCRIPTION:
 GATCCCTTGA GCCGAGGAGG TTGAGGCTGC AGTGAGCTAT GGTACACCA CTGCACTCCA 60
 50 GCNTTGGTGA TNATGCAAGA CCTGTITTAC AAA 93

55

SEQ ID NO:3573

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04189

SEQUENCE DESCRIPTION:

GATCGCACAC CTTGCAACA GATGTGTTCT GATTCTCTGA ACCTACAAA TAGTTATACA 60

TAGTGGAATA AAGAAGGTAA ACCATCAAA 89

SEQ ID NO:3574

SEQUENCE LENGTH:90

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04190

SEQUENCE DESCRIPTION:

GATCAGTGTC TCTAGTCCTA CCCAGTTTAA AAGTTCATGG TAAGATTGA CCTCATCTCC 60

CTCAAATAAA TNTATTGGTG ATTTTNGAAA 90

SEQ ID NO:3575

SEQUENCE LENGTH:87

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04191

SEQUENCE DESCRIPTION:

GATCCGCCAG GTGCGGCGC TACTGCAGGC ACAGCAGGCC TAGGTCCTCC CACACCTGCC 60

CCCTAATAAA GTGGCGCGA GAGGAAA 87

SEQ ID NO:3576

SEQUENCE LENGTH:87

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04192

SEQUENCE DESCRIPTION:

GATCCACCCA CACCTAAGTC ACAGAATTTC TAAGTCCCC AACTACTCTC ACACCCNTTT 60

AAAGATAAAG TATGTTGTAA CCAGAAA 87

SEQ ID NO:3577

SEQUENCE LENGTH:83

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04193

SEQUENCE DESCRIPTION:

GATCAAAGTG AATGAAACCC CCACACACAC ACACATGCAT ACACACACAC ACACAGCCAC 60

ACACACAGAA AATATACTGT AAA 83

SEQ ID NO:3578

SEQUENCE LENGTH:83

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04194

SEQUENCE DESCRIPTION:

GATCCCTATT CTGCGTGTAT GTGTTTGCAC ATGAGTGTTT GTAGACCATA GACCATTAAA 60
AAATACGGAA TTCAAAAGTT AAA 83

SEQ ID NO:3579

SEQUENCE LENGTH:84

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04195

SEQUENCE DESCRIPTION:

GATCTATGAA TGTTTTNTT AAAATTTACA AAGCTTTGTA AATTAGATTT TTTTAATAA 60
AATGCCATTT GTCAAGNTT TAAA 84

SEQ ID NO:3580

SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04196

SEQUENCE DESCRIPTION:

GATCACATAA AGGCAAGAGG ATACTTCATG AATAATACAT TTNAATGCAA ATAAACAGAT 60
GGTCTACTTC TACTAGCTAT NNCCCTGTCT TNNTATACAC TGAGTAGATT AN 112

SEQ ID NO:3581

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04197

SEQUENCE DESCRIPTION:

GATCTATGTC TGTTGGTGGC AATGTGAGGG TGATACTCTC TCACTCTAAT AAACCTGGCA 60
CTTCTCCGAG TAAA 74

SEQ ID NO:3582

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04198

SEQUENCE DESCRIPTION:

GATCCTGTAT GTGTGTTGAG ATTTAGAGGT TTCATTTATN TTGTCTGCTA ANAAATTGTT 60
ACTCTAATAA TAAA 74

SEQ ID NO:3583

SEQUENCE LENGTH:71

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04199

SEQUENCE DESCRIPTION:

GATCACTGTA TAGACTGTTA AATTGATTT CTTATTACCN ATTGTAAAT AAAGTGTGTG 60
AGACAGACAA A 71

SEQ ID NO:3584

SEQUENCE LENGTH:71

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04200

SEQUENCE DESCRIPTION:

GATCTATTTC TCTGTCTACT TTGGANATGA TTGCATAATA AATAAAATTT TACTGTTTTT 60
TTAAAAGGAA A 71

SEQ ID NO:3585

SEQUENCE LENGTH:69

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04201

SEQUENCE DESCRIPTION:

GATCTAAAGA TGTTTAGGGA AGAGCTCGAC TAAAGAACAA TGAAATAAAT GGTCCAAGGG 60
GAAGTCAAA 69

SEQ ID NO:3586

SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04202

SEQUENCE DESCRIPTION:

GATCAAAAAT GTAAGTCTAT TGGTAGAGAT TAAGTAAAGT ATTTATTGCT ACATCATAGT 60
TGAAA 65

SEQ ID NO:3587

SEQUENCE LENGTH:53

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04203

SEQUENCE DESCRIPTION:

GATCTGTGTT GCATTTCAAA ATAAAGTGGT GTGTGCTCTG CCTGGATTG AAA 53

SEQ ID NO:3588

SEQUENCE LENGTH:153

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04204

SEQUENCE DESCRIPTION:

GATCTCAGCC CAGGACGNCA AGCAAGCAGG TCTTGTGAGC AAGATTTGTC CTGTTGAGAC 60

ACTGGTGGAA GAAGCCATCC AGTGTGCAGA AAAANTTGCC AGCAATTCT AAAAATTTGT 120

AGTAGNCGAT GGNCNAAGNA TCAGTGGATN CAN 153

SEQ ID NO:3589

SEQUENCE LENGTH:29

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04205

SEQUENCE DESCRIPTION:

GATCCAAATA AAGGTAGCTG CTGACCAAA 29

SEQ ID NO:3590

SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04206

SEQUENCE DESCRIPTION:

GATCTCTCTA CAAGAGCCCC TGCCCTCTG TTGGAGGCAC AGTTTATAGAA TAAGGAGGAG 60

GAGN 64

SEQ ID NO:3591

SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04207

SEQUENCE DESCRIPTION:

GATCCTTTGC GTGACAGTCT TGTATGGAAA ACAGATGCTG ACAGAATTGT AGACTACCAT 60

NCCN 64

SEQ ID NO:3592

SEQUENCE LENGTH:63

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04210

SEQUENCE DESCRIPTION:

GATCTCGCCT TGTTTCTTAC AAGCAAACCA GGGTCCCTTC TTGGCACGTA ACATGTACGT 60

ATN 63

SEQ ID NO:3593

SEQUENCE LENGTH:63

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04211

SEQUENCE DESCRIPTION:

GATCTTTGCG AATTACAATG CATATATGTC TATTTATTCA ATATCTGTCA TATAATANCT 60
ATN 63

SEQ ID NO:3594

SEQUENCE LENGTH:58

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04213

SEQUENCE DESCRIPTION:

GATCTTAAGA AACTTCATA CTGTATGAAT AAGAAAATAA AATATTAAA ACTTGAAA 58

SEQ ID NO:3595

SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04214

SEQUENCE DESCRIPTION:

GATCGCCAAG TTCAAAGCTG TGCACATGTG GACACTCAAT AAATGTTTTCAT TGGTGAAAAA 60
CAAA 64

SEQ ID NO:3596

SEQUENCE LENGTH:56

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04215

SEQUENCE DESCRIPTION:

GATCCAAAAA GAGTCGACCN GCATTNTTTA TATTAAAAAT AAAGTCAAGA TTAAAA 56

SEQ ID NO:3597

SEQUENCE LENGTH:52

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04216

SEQUENCE DESCRIPTION:

GATCTTTGTT AATGTCTTGA TTCTGTTGCG AAAGCACAGA CTAGTGCTTA AA 52

SEQ ID NO:3598

SEQUENCE LENGTH:52

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04218

SEQUENCE DESCRIPTION:

GATCGCACCA CTGAGCTCCA GCCTGGGCAG CTGNATGAGA CTNCATCTCA AA

52

SEQ ID NO:3599

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04219

SEQUENCE DESCRIPTION:

GATCTGGAGG GACACACAGG AGACACCTGG CATAACCAA AAATGATTAA A

51

SEQ ID NO:3600

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04220

SEQUENCE DESCRIPTION:

GATCGAAAAC ATATAGANAA AATAAAATGT GTGGTTGCAC CTGTACTGAA A

51

SEQ ID NO:3601

SEQUENCE LENGTH:466

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04247

SEQUENCE DESCRIPTION:

GATCTAGAGG AGGATTTGCA GGAAGAGCTC GTGGAAGAGG TGGTGACCAN CAGAGTGGTT 60
 ATGGGAAGNT ATCCAGGCGA GGTGGTCATC AAAATAGCTA CAAACCATAC TAAATNATTC 120
 CATTTGCAAC TTATCCCCAA CAGGTGGTGA AGCAGTATTT TCCAATTTGA AGATTCATTT 180
 GANGGTGGCT CCTGCCACTG CTTAATAGCA GTTCAAACTA AATTTTTTGT ATCAAGTCCC 240
 TGAATGGAAG TATGACGTTG GGTCCCTCTG ANGTTAATT CTGAGTTCTC ATTAAAAGAA 300
 ATTTGCTTTC ATTGTTTAT TTCTTAATTG CTATGCTTCA GANTCATTG TGTTTTATGC 360
 CCTTTCCCCC AGTATTGTAG AGCANGTCTT GTGTAAAGC CCAGTGTGAC AGTGTCTATGA 420
 TGTAGTAGTG NCTACTGGTT NTTAATAAAA NCCNTNTTGT ATGAAA 466

SEQ ID NO:3602

SEQUENCE LENGTH:429

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04248

SEQUENCE DESCRIPTION:

GATCTATAAA TCAAGAAAAT CCATTGTCAT AACCATTTTT AAAAGTCAAT AATTAAGACA 60
 TCCTTAATTA AAAAGTTTCA AATCTAGACA CTAATGTGT GTGAATGTAC AAAGAAAACA 120
 AACCATTGCT TATGCTGTTA TATACTAGAG AAATTTTGT TTGCTTGCTG TTTTAACTTG 180
 ACAGATGAAG GACTTTAGTT GAACCTCATA TTGTAAGAAC TGTTAATAAA AGTTGTCAAG 240

TAAAAAGCGC TATATCTAAA AAGACTTTAT GAACAGTTAT TCTATCAACT TTAAAGGGT 300
 TTAAACCTG CCCAGAAATT ACCTTGGTAT CTGAAGTTTC CCTCTGTCTC CTCCCTCTAA 360
 TTNAGGCTTG TTATTTGTCA TGCACCAGCA TTTGGGGGNT AATAANAATT TCTTNGGTTT 420
 TNGTGGAAA 429

SEQ ID NO:3603

SEQUENCE LENGTH:419

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04249

SEQUENCE DESCRIPTION:

GATCTGTTGT TTGTTTTTAA GGTGGTGTTT TGTAACTTC CAGCAGGATG CAGAATCTAA 60
 CTGGTAAACC TATAAATTGG TCAAATTTNA CCCATGTTGT TTCTTTGAAA ACAATGTATA 120
 TNCTCTAATA TTTGGATATA GGGTATATGA NCATTAATGC AACTTAATTG TATTTCCAAG 180
 TACAGTACAT ATGTNCAGAT TTCTTTTCT AACCTTATTT AGTGATAGAG GTGTGGTAAA 240
 CNCTTCCATT ATGTTTATGT ATTANCACTG TAATTTTGTG ATTTTATAT ATTTNGATGT 300
 TATGTAAC TAATGATACA GGATTAGGTA TTTCTTCTG TATTCCTTTT TATGTGGAGA 360
 TGATATTTT ACATAGCAAA GTATTGTAAT GCATTAATAA TAAATGGTCA ACCATTAAA 419

SEQ ID NO:3604

SEQUENCE LENGTH:419

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04250

SEQUENCE DESCRIPTION:

GATCTGCTAG TTCCAGGCCT CTAAGACAGG AACGTATGTG CCATAAGTGN GTCTACTTCA 60
 CAGACTCAAT GAGGCAGAAA TTATTGTAGT TTTCTCCTAT TTCTTCTGCA CCCAACTTTC 120
 TNCTTGATTT TCAAAGGCCA GGCCATGTAC ACTAACGTCC TTGAAATTTG CAGTTCTGTA 180
 TGCTTCTATT CCAATCATT CATTACCAAT AAAAACGGAA TACCACCCTT TCCATTTTAT 240
 AGNCTCATC CCCTATTTCT GTCAGACAGT TATATGACAG GGTGGNCNGN GGGCCTCTTA 300
 GTTCATCCAA AGTCTNNCCT GNAGTGCTAG NCTTCAGAC TCTATCACT GGAAATCNTT 360
 AAGGGTTGAG GGGGNTTAN TTTCCAGNA CTTGTGNAGG GNTTCAACTG TCAAAACTN 419

SEQ ID NO:3605

SEQUENCE LENGTH:404

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04252

SEQUENCE DESCRIPTION:

GATCCGACAC AGAGAACAGG AGGNACTAGA GGCGACANAN AGNAGGGCTT TAAGCCAAAC 60
 TACATGGAAA ATGGTGATAA AAGAAAATNT GGCTGAAGTT ACCCGAAGTT CAGCTTGACG 120
 TGTAATTCAG AAGAGTTAAG ACCAGAAGTA CTGGAATCAT ACTTCCTTTC AGTCTTGCCA 180
 CTTGCCTAGT GAGGCTTTTC CGAACCTGGA AGGAGACGTC TAGAAATCCC AACTTTGCTG 240
 TGTAAGGACC ATTAGCTGCA AGTCAGTGGA AGTCTATAGA AAANAGTGTG AATTCCATAG 300
 TGGTCTTGAC TTCTTAGCAA GGATTGGGA TAAGTCTAAA ACTTCAGACT TAAAGCTTTG 360

AAGCATGTGA ACTGCATGAN ATATTAANCA TTTCGAACTT CAAA

404

SEQ ID NO:3606

SEQUENCE LENGTH:403

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04253

SEQUENCE DESCRIPTION:

GATCCATGAA TTAACAGAGG CATATATTTA AAATGAAATT TAATGAGCAC TTAGTGACTT 60
 CATTTGTTC AAGATATTTG ATTTCTTATT GTGTGCATGG GAGGTTTACA AAAGACAGAC 120
 TGTCCCTATG CTTGTNCAGC TTACAATCTA TTAACTATT AGAGGCCCTG TGAGATGTAG 180
 GCAGTTATTT ACAGATGAGA AAACAAACAC AGCAGTGGCA ATGCTGGGAA TGGCCAACAG 240
 GCTTGGAAAT CAACCTAGTT TAGCACAAA GCCAGTNTA TTAAGACCTG AAGTTCAACA 300
 GTGGATTCTT TACCCAAAATA GTTTTAAAG TATGCTCTAA GGNCCAATGT TTTAATGAA 360
 ATCTTGGNTT NCAAGTNGG NNTAAAAGGG TTCTGAGCAT AAA 403

SEQ ID NO:3607

SEQUENCE LENGTH:396

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04256

SEQUENCE DESCRIPTION:

GATCTTACTT CGTTGACCCA TATTTTCCC CTGACCAAGT TACCTGTAAA CTGGAATTTG 60
 CAAGGGGATG CTGTGATGAT AACCCCTTTC TATTGCTGTA ATGTTTCATAT AACCTGGGAA 120
 ACTGAGAGAA GGGGATGTGT AAATAAAGC TTAACATTT TAGTAATGTG TTAATATGTC 180
 ACTCTCTCTT ACCCTGTTTC CCTTTTTTGC CAGATGATGA TTTTITATT TTTATTTTGT 240
 ACTTTACTGG ATGACTGTGA AGCGNTGAGT ATTGGGTTGG GGTAGGTGTG TTGATTTTGA 300
 GAGTGATGT TAAGACCTGA AGGGGAATA CTTGAGGATG ACTTAAGAAG CATCCCATGC 360
 AAATATCTTG TTTTGGCCNG AATAAATAT TTCAAA 396

SEQ ID NO:3608

SEQUENCE LENGTH:392

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04257

SEQUENCE DESCRIPTION:

GATCTGCCCC CCTTGGCCTC CCAAAGTGCT GGGATTACAG ACATGAGCCA CCACGCTTGG 60
 CCGGGATAGT ATATTTTAT AGCACTTCCC CTACTGATTG CTGCCTTCTC TGTGGCTACA 120
 AGGGACCCAC AGAATTACAG GGAAGTTACA GGGNNGCAGG TTTCATCTCA ATATTGGGAG 180
 AGATTTCAA CAATCACACC NNNNNNCGA AGGAGTGGGC TGTCATAGG AATTTTATT 240
 CCCAGTCCGT CAGGAATTTT GTAGAAGGC TTCATGTGCT GGTACCAATA GGACAGGAAG 300
 ATTTAATCA GCTTACTAT CTATGTTTTT TTATGGAAAC TGTGTGTATG TATACATACA 360
 TTTTCAAAA AGNANAAATT AAATGATTAT AG 392

SEQ ID NO:3609

SEQUENCE LENGTH:392
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 5 CLONE:HUMGS04258
 SEQUENCE DESCRIPTION:
 GATCCGCCCC CCTCCGCCTC CCAAATTGCN GGGATTACAG NCCTNAGCCA TNGCCACCCG 60
 GCCAATAAAA ATTTTITTA AGCTAAAATT GACTCTCATG CAAATAAGAT AAAATGAACA 120
 10 TATGTTAAAT ATTTTAACTT AATGAGAGAA ATAGTAAGAT GTTACCAGTT ACTTGATGAT 180
 GGAGGAAAGG ACGAAAAGCC AAGGAATACA TGGAATGCAG CTCTAGGTGC TGAAAAAGGC 240
 ANGGAAGGT TCTACGTTAG NGCTTCCAGA GGGAGCTCAG CCCTGTCANC ANCNTNGTTT 300
 CAGCTCAGTC ATATCGNTGT TTAGACTTTC TGGTCCCCAG NGCTGGGCGG GGGATATATT 360
 TCCTGCTGTT TTAAGNCNCC NNATTTTGTG GN 392

SEQ ID NO:3610
 SEQUENCE LENGTH:391
 SEQUENCE TYPE:nucleic acid
 20 TOPOLOGY:linear
 CLONE:HUMGS04259
 SEQUENCE DESCRIPTION:
 GATCCTAAGG GGTTCAGGGG GACCCATACC CCACCTCAGG TTGGGCTTCC NTGGCCACTC 60
 ATGCTCCACA CCAAAGCAGG ACACGCCATT TTCCACTGAC CACCCTCTAC CCTGAGGAAA 120
 25 GGGAGACTTT CCTCCGATGT TTATTTAGCT GTTGCAAACA TCTTCACCCT AATAGTCCCT 180
 CCTCCAATTC CAGCCACTTG TNAGGCTCTC CTCTTGACCA CTGTGTTATG GGATAAGGGG 240
 AGGGGGTGGG CATATTCTGG AGAGGAGCAG AGGTCCAAGG ACCCAGGAAT TTGGCATGGA 300
 ACAGGTGGTA GGAGAGCCCC AGGGAGACGC CCAGGAGCTG GCTGAANGCA CTTTGTACA 360
 30 TGTAATGTAT TATATGGGGT CTGGGGCTCC N 391

SEQ ID NO:3611
 SEQUENCE LENGTH:386
 SEQUENCE TYPE:nucleic acid
 35 TOPOLOGY:linear
 CLONE:HUMGS04261
 SEQUENCE DESCRIPTION:
 GATCCGACCG CGTGNTGCCG CTCTGCTCTC TCATACGGGT GTATGTTTGG TTCCATGTCA 60
 40 CAGCCCCCTA GGAGCCAGTN ATGCTCGGCC TTGCGCCCGT NCCACCTCCC AGGCCACCCT 120
 TCCTGGGCTT CTGGGCCACC TGCCCTCGGG GGGCCCTGC NAGGGTGCCT GNGTTCCCA 180
 CGTGTCGCGG GGCTTTTCCA GGAAGCCCGA GCCCAGGACC TGTTGGCAGA GTTGCCAGGG 240
 TTACATTTT NAAGCACCTG CTCCTTTTNT TGCAGTGTAT TTTCTACAAC CAGATTGTAT 300
 45 TAATATTTT AACTTTGCC TTTTAAAAA TATACCTAAT ACAATATATT TAATTNTGAA 360
 TTAAGTCTT AACTTTTCT TCCAAA 386

SEQ ID NO:3612
 SEQUENCE LENGTH:375
 SEQUENCE TYPE:nucleic acid
 50 TOPOLOGY:linear

55

CLONE:HUMGS04264

SEQUENCE DESCRIPTION:

5 GATCCCTTTG GGGCATGAAG TGTGACAAGT GTGGGCTCCT GAAAGGANTG TNCCAGAGAA 60
 ACCAGCTAAA TCATGACACC TTCAATTTGC CATCATGACG CAGACCTGTA TACATTAGGN 120
 TAAATCTGAA TTTCCACTGC TTTGGAGAGT CCCACCCACT AAGCACTGNG CATNNAACA 180
 GGTTCCTTTG CTCAGATGAA GGAAGTAGGG GGTGGGGCTT TCCTTGTTGTG ATGCCTCCTT 240
 AGGCACACAG GCAATGTCTC AAGTACTTTG ACCTTAGGGT AGAAGGCCAA GCTGCCAGTA 300
 10 AATGTCTCAG CATTGCTGCT AATTTTGGTC CTGCTAGTTT CTGGATTGTA CAAATAAATG 360
 TGTGTAGAT GGAAG 375

SEQ ID NO:3613

SEQUENCE LENGTH:372

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04265

SEQUENCE DESCRIPTION:

20 GATCCTAGAC CAGCATGCCA GTGTGCCAAG GCCACAGGGA AAGCGAGTGG TTGGTAAAAA 60
 TCCGTGAGGT CGGCAATATG TTGTTTTTCT GGAACCTACT TATGGTAACC TTTTATTTAT 120
 TTNCTAATAT AATGGGGGAG TTTCGTACTG AGGTGTAAAG GGATTATAT GGGGACGTAG 180
 NCCGCNNTCC CNNGTGTGT AGGTTTCTCT TTTTCAGGCT TATACTCATG AATCTTGTCT 240
 GAAGCTTTTG AGGGCAGACT GCCAAGTCCT GGAGAAATAG TAGATGGCAA GTTTGTGGGT 300
 25 TTTTTTTTTT NACACGAATT TGNGGAAAAC CATTAAATCA TTCAAAATAA TAANCTNTTT 360
 TTATTNGGGA AA 372

SEQ ID NO:3614

SEQUENCE LENGTH:372

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04266

SEQUENCE DESCRIPTION:

35 GATCTAAATA TATATTTTGT ATATTATAAT ATTTTAGGAA TAGCTTAATT AAGANCTCAC 60
 AGACTTTGAC AAAGTGGTAA CTAGACTTTT AATTACTAGA TTCTTCAAAT TAGGCTTAAT 120
 GCCTGCTAGC ATGCCAATCC AATCCCATGA CTGATGTTAT TATACACTAT GGCAAATACA 180
 AAGTTGTAGT ATTATGGTTC TTGATGGTGT GATTACTTA TGTAATTAT GTACAAATT 240
 40 AAGTTCAATG AAACACTGAT TTAATGTACT GAAAGGTAAA TAGTACCATA GTGAATTAT 300
 TCCTGTCTTG CCTTAGGTTT ATTTTATNA TCTTCAATAT TAGANTAAAT GCTAAATTAT 360
 TTCATTTTA AA 372

SEQ ID NO:3615

SEQUENCE LENGTH:370

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04267

SEQUENCE DESCRIPTION:

50 GATCTGAACT CCTTATACAT AAGAAGGTGT GTATATTAAT CCAATTATGG ACTTAAATA 60

55

EP 0 679 716 A1

TTTTAAAGT ATAAATACCC TTATTTGCTG CAAAGACCAG TGTGTAGGCA TTTGCTTTT 120
 AGCAATATTT TTAAGTGCTC CATTTTAATG CCGAGGAATA AGTCTTTTGG CAACACAAAC 180
 TGGTCAATAA TAGGTAATGC AGGTATGTTT AGGTTAAGCC AACAATGTTT TGCATTTTAA 240
 TGCTTATTTT CTGTCAACAC TAATGAAGTC AACATTGCCT GAATGTCTGA ATAATGAAAC 300
 ACATCCCNGT TTAAGATAT GTAACGTAAA AAGAAATAAA AAANAAATTA AAAGGTAGGT 360
 TTTTTTAAA 370

SEQ ID NO:3616
 SEQUENCE LENGTH:370
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04268

SEQUENCE DESCRIPTION:
 GATCCCATTA TATAGTATGT ATAGCTGAAA TCTGTAATTC AATCACTTTT TCTCTTTTAT 60
 CCTCTAACCA AAAAAATTGT TAATTTTGCA TCCCAAATGT TTTAATCTT TGTATATTTT 120
 TNAAAAATCC NTTTCTCCTC AGCANTGCCT TTTTNGTGGT TGTAAATAGA CTTACTTGCA 180
 CTTTGAAGAT GAGTTACTCC TTGTCATCTT ACAAATATGT GATATGGTAA TTNCCATAAC 240
 AGATGTCAGT TTTGANCCAA GAATTGGTGA TTTGTTTATA AGAAAAAAC TGGCTTCATT 300
 NCTGTGNAAT TGCTCTTTGG NAAATTNCTN NTTNACACGT GTAAGCCAAC CTGAGGTACC 360
 GTGATGGGTN 370

SEQ ID NO:3617
 SEQUENCE LENGTH:368
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04269

SEQUENCE DESCRIPTION:
 GATCCCTGCT CAAGCAGCAC AGAGGAAGGG GCAAGACGTG GCCTGTAGGC ACTGTNTCAG 60
 CCTGCAGAGA AGAAAGTNAG GCCGGGAGCN TGAGCCTGGG CTGGAGCNTT CTCCCCTCCC 120
 CANTTGGACT AGGGGCAGTN TTAATTTTNA AAAGGTGTGG GTCCCTGTTT CCTCTCCAG 180
 GGGTCCAAGG GAACAGGAGA GGTCACTGGG CCTGTTTTTT CCCTCCTGAC CCTGCATCTC 240
 CCACCCCGTG TATCATAGGG AACTTTCACC TTAATATCTT TCTAAGCAA GTGTGAATAG 300
 GATTTTNACT CCCTTTGTAC NNCNGNCTGA GGAAACGCAA ATAANAAGGG CAACATGTTT 360
 CTNTTAAA 368

SEQ ID NO:3618
 SEQUENCE LENGTH:364
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04270

SEQUENCE DESCRIPTION:
 GATCGGCCCA GCTCCTGAAC TGTGANGAGG CCATTCATAT GGCATTCCTG GAACAAAACA 60
 CTGCACAGGT ACCAGCCTCT CCACTCCTGA CCGGGTGGT GCTGAACAGT CAGGGATTGT 120
 NCTTGAAC TA GACTTCTGAT GCTTCTTGCA ATCTTCTTTC ATCTTCCCT GAAATACACA 180
 AAATAACAA NTACAATAAC AAATAGTAAT TAANTGACTT TCAGGATAAC ATCTAGTTGT 240

TCAGACTTCA CCCTTCACAG GTGTGTGTGT ATGTGTGTTT ATGTCTGTAT ATTGANGCAN 300
 TTTGAATTTA TTTTACTGTA TATNTNCTGA GTAAANGACT GANATGNNCT NCTTGGGTCA 360
 GAAA 364

5 SEQ ID NO:3619
 SEQUENCE LENGTH:363
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 10 CLONE:HUMGS04271
 SEQUENCE DESCRIPTION:

15 GATCTGAAGC CTTCCATAAA TNAGAGGCCA TTCATATGGC ATTCCTGGAA CAAAACACTG 60
 CACAGGTACC AGCCTCTCCA CTCCTGACCG GGTGGGTGCT GAACAGTCAG GGATTGTTCT 120
 TGAAGTAGAC TTCTGATGCT TCTTGCAATC TTCTTTCATC TTTCCCTGAA ATACACAAAA 180
 TAAACAAATA CAATAACAAA TAGTAATTAA ATGACTTTCA GGATAACATC TAGTTGTTCA 240
 GACTTCACCC TTCACAGGTG TGTGTGTATG TGTGTTTATG TCTGTATATT GANGCAATTT 300
 GANTTTATTT ACTGGTATAT GTTCTGAGT AAAAGNCTGA AATGNNCTNC TTGGNNCNGG 360
 20 AAA 363

SEQ ID NO:3620
 SEQUENCE LENGTH:361
 SEQUENCE TYPE:nucleic acid
 25 TOPOLOGY:linear
 CLONE:HUMGS04272
 SEQUENCE DESCRIPTION:

30 GATCCAGGAT GTACTTGGAT GAGGAGGCCT GGCTTATCTA GGAAGTCGTG TCTGGGGTGC 60
 TTATTGCTGC TCCATACAGC TGTACGTCAG CCCCTTGGCC TTCTCTGTAG GTTCTTGGCA 120
 GCAANNNGC AGCTTTTACT CAGTGACACA AGTAATTACT GAGTCCTAAT TTGATAGCCA 180
 CCAACTGTAC CTGGGTAGGC AAAGTCAGAT TTNGAGGAC CTTTTTCCTG ATTTGAAGTT 240
 TTAATTACCT TATTTTCTNT TATGCTTNC CTCTGTCTTG TAATCNTNCT CTTCTAAAA 300
 35 ANCCTCCCTA TAAATTCAAT TAATTGGGT TAATTTTAGG ATAAACCCAT TTANTTCNAA 360
 A 361

SEQ ID NO:3621
 SEQUENCE LENGTH:359
 SEQUENCE TYPE:nucleic acid
 40 TOPOLOGY:linear
 CLONE:HUMGS04273
 SEQUENCE DESCRIPTION:

45 GATCCAGATN CTTTCGGATG TCAGGGATAT TCACATTGAC ATGTCTNNNN AGTGTTCAG 60
 GAGATTTTAG TTGAATAGT ACAATTTTTT CTTCTTACAA CAAAACCTAG AACGGCTTCT 120
 AACTTATTC TTCATGGCCA AGAACTACC CTAACCTATC TCGATAAATA TTTAGTTCTG 180
 TCTTATTTCT AATGTGTAAG ACAGGTTTTA AAAATAATAT ATAGATTTTG CATTATATAA 240
 AAAAGATTTA ATTTATAGAA CCAAACTNGA ACATATGTTT AATTAGCCT AATCAGAAGG 300
 50 TTACAGAAAA AGTTGCTGTA AAGATAGAAT AAAGGGTATT GTACTGGTCT GTTTTAAA 359

SEQ ID NO:3622

SEQUENCE LENGTH:356

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04274

SEQUENCE DESCRIPTION:

GATCTACAGC AGCTGCATCG AGGACTCCCA CAGAGGTGCT ATAGGGCTGC GCATTGCACT 60
 GGCCATCTCA GCTATAGCCG TCTTCCTGGT CTTGGTGTCT GNCTGTATCC TCGATTGG 120
 CACCAGGTCT CTCTGCAACT CCATCATCTC CTTGAACACT ACAATNAGCT GTNCTGAAGC 180
 CCAGAAAATT CCATGGACAC CCCCTGGAAC TGCTCTGCAG TTTTACTCCA ACCTACACAA 240
 TGNTGAAACC TMTCTTGGG TGAATTTGGT ATTGTGGTGT GTGGTCTTGG TGCTCCAGGT 300
 CGTGCAGTGG AAGTCTGAAG CCACCCATA CCGGCCTCTG GAGAGGGGTG ACCCTN 356

SEQ ID NO:3623

SEQUENCE LENGTH:420

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04275

SEQUENCE DESCRIPTION:

GATCCCCCT GNCAGACACC AAAGCTGTGA ACAGAAAGAC TGCCTGGCCA GCAAACCTTG 60
 GGACATCAGC CTNGCCAGC CTGAAAGCAT CCGNAGTGAC CTAGAGAGTT CTGATGCACA 120
 GTCAGACGAT GTGCCAGACA TCACCTCANA TGAGTGTGGC TCCCCCGCT CCCATACTGC 180
 AGCCTGCCCC TCGACCCCA GAGCCCAAGG TGCACCGAGC CCAAGTGCCC ATATGAACCT 240
 CTCTGCCCTA GCCGAGGGAC AAATGTCTT GAAGCCAGAA GGTGGAGAAG CCAGAGTATG 300
 AAGTGGAAAT AATGCTCCTG TTCTGAGANG AACTTGTAA CTGCATCTTT TGGAATTTT 360
 TTTTTTTTT GCCCAGGGGN NAGGGTTTNT GGTTTTAAAT TTANAGGN CN TTTGGGCAAN 420

SEQ ID NO:3624

SEQUENCE LENGTH:352

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04276

SEQUENCE DESCRIPTION:

GATCAGAATT AAAC TAGTAC TATGAAATGT CCTTTTGAAT GTNAGGTCAA GAAATCCATG 60
 TACAGAGTCG TGCACCTCAT TGGCTGTAAAC TGTCAAACTT GCCTTGATT AGAAGTTAAA 120
 TCCCATCGTA AATACATCAC GAGGCCAGCT GTGTGATTTC TGAGACCTAG ATGAGAGTCC 180
 NATTA CTCA AGCNTTGATT CAGTAAATNT TAAGCAGCAG AAGNCTTCGG ATGGGTTGAA 240
 AATCAATNTT ACAAGGTTTT AACTCATAAA CCCATNNGGG NTTTTTTTTT TCCTCTGCAA 300
 NNGGTTNCTA AGGCTANTCC NTGGTAACAC TNTGGGAAAN AAATNTGGAG GN 352

SEQ ID NO:3625

SEQUENCE LENGTH:348

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04278

SEQUENCE DESCRIPTION:

GATCTCCAGT NGGCCTTTGC AGGCCCGGCC TCCTGCCCTCT NGAAGGCCTA NCACGGGCCC 60
 GGCCCTCGGCC TCGGCCTCAC AGCAGACTCT CCACGCCCAG CTAGCTCTTG CCTCACTGCG 120
 GCCTCCCCAG TCCAAAGCTC CTGCCTTTNG GCCACTTCGG CAGGTCCAGC TCCTGCCCTGC 180
 CAGTGGCCTC TTAGGCCCA GCTCATTCCT CACGTCGGCC ATTCCAGGCC CCGTTTTTCC 240
 CTTCCGGCAG CCTCTTGGCC TCTAATTGT TTATNTTTTG TGTATAAATC CCAAAATATT 300
 GAATTTTGA ATATTCCAC CGGGGGNGTA AATATTTTGA TAGGTAAA 348

SEQ ID NO:3626

SEQUENCE LENGTH:347

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04279

SEQUENCE DESCRIPTION:

GATCTTTATT AAGACAGTGG AAAGTATACT ATTAAGTCAT CATAGTCTTT TGGAGACTTG 60
 TCAAANACAG CAATNAGAAA ATAAGACCTA GCATACCGTG GAGAACCATT AAAAAATTNA 120
 NANGAAACAA CAAGTATTAT GTCAACTTAC TTCAAAGGCG AGTTTTGGGA TTTNATGCAG 180
 TAAAGATTCC CTGTTTTATG ATTGTCCCTT GAAAGTCAAA TGGGGGCGCTG TCCATTGTCC 240
 TCTATTAANC TTNCAGAACT GTCACCAACA AATTTGAGTT GCCTTGCTA GGGTTCTGGG 300
 TAGTGAAGAT ATTNATNAT ATAATNAAAT ACACTGTTAG TACTTAN 347

SEQ ID NO:3627

SEQUENCE LENGTH:341

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04280

SEQUENCE DESCRIPTION:

GATCAGAGGA GGAGTGTGAG TGTCTCATA CTCACAGCAA AAGGAGGGAA TTCAGGAGAG 60
 GATTGAAGAA GCGGTTCTG TTTTAAAGGC ATTTGCAATC ATTGCTGGAG AGACAGAACC 120
 AACAGATGGG GAACAATGGC CAGGGACTCC AGGCCTGATT TAAGCCAATG CCGCCCTGTG 180
 GTCTTTACCC ACGAATGGTG TGGAAAATNA GAGCAGGGAA GAGGATTAC TCACTGGCTG 240
 TGGAGTTAGG TCAGAAGGGG GNTGGAAAGA TGGAAACGTA TGGNTTTGGG GACATTTCTT 300
 AATCTNTAGG CTTACCTTC CTAACTGAA ATTAAGGCC N 341

SEQ ID NO:3628

SEQUENCE LENGTH:341

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04281

SEQUENCE DESCRIPTION:

GATCGACCTG TCATGTTTT AAGGTTATCC AGGCTGTATA TCTCTGGAAN AGAAGGGAAT 60
 GGCAAAGAGT GGGAGTCTGA GTCAAGTTG GTTTGNITT NNNAAGAGAC AAGGTCTCTG 120
 TAATCCAGGC TGCAGTACAC TGGCATGNCC ATGGCTCACT ATAGACTTGG GCTCAGCCAA 180
 TCTTCTGCC TCAGCCTCCT GAGTAGCTGG GNTTGGTTTT CCCAGGGCC ATATGTCAGC 240
 TTATTTACCC TACTCACTG GTGNTCCCA GNTGCCAGC CATGCTGTT ATCCAGTATC 300

TTCTNNATGG GGATTACCTA TTAAGGGGAC TAACACAAAA N

341

SEQ ID NO:3629

SEQUENCE LENGTH:340

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04282

SEQUENCE DESCRIPTION:

GATCATGGAA CCCCTCTTCC GGCAGTTGGC CAAATGTGTC TCCAGCCCAT ACTTCCAGGT 60
 GGCAGAGCGA GCTCTCTATT ACTGGAATAA TGAATACATC ATGAGTTTAA TCAGTGACAA 120
 CGCAGCGAAG ATTCTGCCCN NNCATGTTTC CTTCTTGTA CCGCAACTCA AAGACCCATT 180
 GGAACAAGAC AATACATGGC TTGATATACA ACGCCCTGAA GCTCTTCATG GAGATGAACC 240
 AAAAGCTATT TGATGACTGT ACACAACAGT TCAANGCAGA GAAACTAAAA GAGTTGCTAN 300
 AANTGNAAGA NCGGGNNGAN GCATGGGTTA AATTAGAAAN 340

SEQ ID NO:3630

SEQUENCE LENGTH:339

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04284

SEQUENCE DESCRIPTION:

GATCTGCCAC ATGTNTGAGG GTTGCAGAGC CCGCTGTGGA GGTAAGATTG GAAACACATG 60
 NAGCAGAGGG AAGACATTGA AGAAAACATC TCTNCTGGAA TATTTGGAAA AGAACACTCT 120
 TCTGGACCTG GTTGAAGCAG GAAAGATGGA GGCAAAGTAG TGAAATAATC CAGAATTTCA 180
 ATGCTTTTNA ATGTNCTTAG TGATACTGAC CTGTGATAAT ATAATTCCCA GGGAGGACTG 240
 GGAACCTTAT CTCTTGAGAT ATTTGCATAA TTTATTTAAT TTAAGCCTCA TTCTCCTTTT 300
 GTNCATTTTG GTAATAAACT GGATTTGAAT TGTGAACAN 339

SEQ ID NO:3631

SEQUENCE LENGTH:339

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04285

SEQUENCE DESCRIPTION:

GATCCAGCCA GTATAGAACT AGCTCTGTAG GGGTGAGGAG GACTNTGCTA TGTATCATCC 60
 TNGATTGTNT TCCTTCAAGG AGCATTGCAC TTGCCTTCCC AGACCTTCCA CCTTAGGTTT 120
 TGCTGCAAAA AGCACCAGTG CTGAAGATGC TGCAAGACCA AATCATAGCT CATAAAATCA 180
 GGTCTTGAGA TAGTTACCCA TAAAGAGGAA TCCTTTGAGT GTATGCCATT GGTGAGCCGA 240
 TGAGCATGGA CCATAGAAGG GCTCAATGTA GANTGAAACT ACCCGTGTGT AAAAAGAAGN 300
 TTGGNTTAAA ATGGCTACTT TGGATGGGNA CCAGTGTCN 339

SEQ ID NO:3632

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04286

SEQUENCE DESCRIPTION:

GATCAGAGGG GAAACAAACG CCAAGGGGTT GGGAAATGGGT CGGCATCTGG AGTCTGAGAC 60
 AGCTGCCCTC CTGCGTCAAG GGCTGGGGGC CTCAGCTTCC ATCCTGTGCC AGCCTCCATG 120
 TGGACAGCTC AGCTTATTGT CCACCACCTG GAAATNCCTC GAAGCTTCAT NNGTCCAGGT 180
 CAAGAGAATC CTGTTCCCAG ACCTCTGCCC AGCCAGGCCT TCCCAGCTCA GGGCTGACTC 240
 CTGCACCAAG TGACGCACCT TTNATAACTG GTCTACCAAT GNCTCCCCCTT CAAGTGAGAA 300
 CTACCCTTTA CATTTAGGAG TGTGGCCCCG CAGTAAA 337

SEQ ID NO:3633

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04287

SEQUENCE DESCRIPTION:

GATCCCTGTA TGCNGCCAAG GATGGGACTT CCAGCTAATG AATTGTGACA TGCAGCCAAA 60
 TTTACAGGAA TTTTTTAA AGGCAGAAAA ACTTGAAATA CCAACATTCT GGCAAAAAAN 120
 ANTCACTTTT ATGANGAGTA AGTGGAACCT GGGNTGCAGG ANCAAAAGAG GGAAATGTTG 180
 GGCAACATT TTNNTGGGAG CTCCCTTCGC TGTGTGCAG CAGAAACAGA TTCTNAGTTC 240
 ATTTTACTC CCACTGTATT ATAGTTTANC AAAANTNGTT TATATCTTGG AAAAAAANCT 300
 TTCGTGTTAA AAAANTTAAN CAAGTGAATG TNGGAAN 337

SEQ ID NO:3634

SEQUENCE LENGTH:390

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04288

SEQUENCE DESCRIPTION:

GATCCCACTG ATTGGCCAGC CGAGCGAGAA CCAGGCTGCT GCATGGCACT GACCGCCGCT 60
 TCCAGCTTCC TCTNAGCCGC AGGGCCTGCN ACGCGGGCAA GCGTGCTGCC TCTNTNCTGT 120
 GTCGTTTTGT TGCCAAGGCA GAATGAAAAG TCCTTAACCG TGGACTCTTC CTTTATCCCC 180
 TCCTTTACCC CACATATGCA ATGACTTTNA ATTTNACTN TTGTAGTTTA ATCCTTTGTA 240
 TTACANCATG AAATATAGTT GCATATATGG ACACCGACTT GGGAGGACAG GTCCTGATTG 300
 TCCTTCTCC AGTGATCATG TTTTACTCAC ANATAANATT NTTTCAGCAA GTAAAGNNGG 360
 ANNGGTTTT GGTNGNGNG NGTGNGGTGN 390

SEQ ID NO:3635

SEQUENCE LENGTH:73

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04289

SEQUENCE DESCRIPTION:

GATCTGGCCA TTTGGTACAT AATCCAGCAC AGATAAGCTG GGTGGTAATG ATAATAAAA 60
 TGGTTTTCTC AAA 73

SEQ ID NO:3636

SEQUENCE LENGTH:328

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04290

SEQUENCE DESCRIPTION:

GATCACCTGG GTTCTTTAT TTATCGACTG TGTCATGACA AGGAACTTA CAAACTGCAA 60
 CGCAGAGAAA CTATTAAAGG TATTCAGAAA CGTGAAGCCA GCAATTGTTT CGCAATTCGG 120
 CATTITGAAA ACAAATTTGC CGTGGAACT TTAATTTGTN CTTGAACAGT CAAGAAAAAC 180
 ATTATTGAGG AAAATTAATA TCACAGCATA ACCCCACCCT TTACATTTTG TGCAGTGATT 240
 ATTTTITAAA GTCTTCTTTC ATGTAAGTAG CAAACAGGGC TTTACTATCT TTNCATCTCA 300
 TTAATTCAAT TAAAACCATT ACCTTAAA 328

SEQ ID NO:3637

SEQUENCE LENGTH:328

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04291

SEQUENCE DESCRIPTION:

GATCCTGTGA ACCGTIACIT TGCCTAAATC ACTTGAGACT TGAGTNTTTA ATAACAAAGC 60
 ATCAATATTC ACTAAAGTCA ATCTNTTTTN ANTTTCTGTN ACTTGGCTAG AAGCTCTTGA 120
 CACTAAGGGA TTAGTGTTAA TTTTCCCTGG GGGTGTTCOA CTAGGGCATT ACTGTATAAT 180
 GACTTGATGT TGCCACATAG ACTTCAAGAT ATATAATATT TTNAGGATTT TTTTGATTGG 240
 CCTATGTTTT ATTGCATAGT GTGAACCGTG TAAAGCTTGG TTAACCTGTA TATAGATAGC 300
 TTATTGTTGA CTAGTTATAG TGTATTNN 328

SEQ ID NO:3638

SEQUENCE LENGTH:326

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04292

SEQUENCE DESCRIPTION:

GATCCTTTCC CTGGATACAT AACCCTAGTA GATAATGTTA CTGCAAGATG TAATGNCCAA 60
 ATCCAACCTA CTGCAATNT TACTATGGAA ATCTCAATGC AAAAGTAGCC TTTGTNATTT 120
 TTTTTTAAA CCGTCTCCAT AACAGANCAC TTAGAATTAT TAGCCATTTG CTGCAAAGTA 180
 TTTGTTTTAA AATGTCTGGC ATATACACCA CTAACATTTA ANTGCCCAAC ATTCGGTCTA 240
 TACGTGAAAA ACCTAGANGA AANGCCCTGT TGGAGTTTTG ATGTAGAGTG CAATANTACA 300
 TCAATAAAGG TATTTTAAAA TGGAAA 326

SEQ ID NO:3639

SEQUENCE LENGTH:326

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04293

SEQUENCE DESCRIPTION:

GATCTGTTGT ATGTAATAAG TAACACAGAG TTTTAAAACA AATTAATTAT TTAGCTTTAT 60
 TGAAGTTTGT NTTTTNCCTT CCGAACCTGG AGTATCATAT TATAAACAGC AGTTTCACAC 120
 CAGAATAGCA GTGCCCTTNC TTTTGTACA TACTGATTGG NCCTTTCTTT ACTGTTACGT 180
 5 GGACACTTTC TATGTTAGTT TTGATGCATA ATTCTTTGAA TCCTTTTATA CAAACTAGAA 240
 TGTATGTGTA AGAATACCTG TCCCTGCAAT GTAGTAACTA CAAACTTATT TTTAAATAAA 300
 TAGAAAACTT GTTTTTCTAA GCTAAA 326

10 SEQ ID NO:3640
 SEQUENCE LENGTH:325
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04294

15 SEQUENCE DESCRIPTION:
 GATCCAAGAG TTTAGTGATT TCAAAAAGCCT TGGTCTCAGG AGAAGATTAA ACTTTCATAT 60
 TGGGCAGTGG TTCACTTTAA AACACACACA TACACACACA AAACAATTTT TTAAGAAATC 120
 CTAATAAGTA ACATACCCAA AATGCTCTGT CTTGAGTCAT GAGAACCATC AGTTCTTGAT 180
 20 ATTGTCTAGA CTTGCATCTA GAGCTACGTT GTAAAATTCT TTTAGGCATG TGTTAGATT 240
 CTGTGTAAC TTTGTTTAAA TGTAAACTTC ATACTACATT GTCAGTTTTT GTCTTAATAA 300
 AACTATAGAT TTATAATCCC TGAAG 325

25 SEQ ID NO:3641
 SEQUENCE LENGTH:391
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04295

30 SEQUENCE DESCRIPTION:
 GATCGGAATT TCCACCAATC AGCGGGAAGC CTCGGCCCTG TAACTGCTAA TGGGAGACAG 60
 CAGCGCCACG CCACAGGCTT TTCCCTCGGT TTCGGGAGGG NTGGGGAGCC AGGTGGGGCT 120
 CCCGNCCAGA CCCTTTCCTG AGGTCCGNCC TCTCCGCCTT NCTNTAAAT TCCTCTTTTG 180
 AGTNCCTCC CTTCCGGTTG AGAGGCGGGG GTTGGCCCGT AGTTGTACAC TCAGTCACCC 240
 35 TGAAGTGTGG AGGNGGNGGG NCTCCNTTGT GGAAGTATT GCGTGGGAT TTGGTNTGTT 300
 TTATTAAGGG ATTTGAAAAA ATTCAGATGG ACTTACTAG TATGGACTGT TNGGGTAAAT 360
 ATNGCTTNC NGGGTTAATA AAATGGACAG N 391

40 SEQ ID NO:3642
 SEQUENCE LENGTH:324
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04296

45 SEQUENCE DESCRIPTION:
 GATCCAGTCA ATACATGCAG ACCAGTAAAA TCTGATTGT GCAGAGTTCT CCATCTGACT 60
 CTCACCTTATT TCTGTAGATA TATACATATA TAAATACAAG TATGTNCTTA CGGCACAGTA 120
 TTGCTGACCT TTAGTTCGAG GTTTGTGCGG TTGTTGTTA TTTCTTCCT CTTGCAAGTG 180
 50 CTATCCATGT GAGTGTGTGA AGTTTCTCTA ATAAGTAAAA CACAGGCCCT TTTCTTGT 240
 TGTTTTGTGT TAGTTATTG TAAACAGCCA TTTGTTGTAA ATNATTATTG GCATTAAATT 300

ATAATTTATG ATTTTCAAAG CAAA

324

SEQ ID NO:3643

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04297

SEQUENCE DESCRIPTION:

5 GATCCAGTCT AGGCCCGTAT GTTGCAATTT GCTGTCATGT CTTCTTAGTC TCCATCNCAT 60
 CTCAGTGGTC TTTTCTTTTC CATGACTGTG ACAGAAATGA TTTGTATCCT TCATATATCT 120
 GCAGTCACAT GAAGTCTATT TGTCCCACTA CTGGTGACGT AAATTTTGGT AACTTGTTG 180
 10 AGGGTGGTAC CGTCTAGGTT TCTCCATATT AAGTTGCTAT TTTNCCTTGT GTATTTAATA 240
 15 AGTATCTTAT AGGGAAATCC TTTGAGACTA TGTAATATC ATATTACATG TATTTNGCCT 300
 GTTTTAGCAT CTTTGAAGA TAN 323

SEQ ID NO:3644

SEQUENCE LENGTH:320

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04298

SEQUENCE DESCRIPTION:

20 GATCTGGAGC ACAAGGAACT CCCATACATT CCTAGTGGGA ATGCCTAATG TTAGAGTCTG 60
 GAAGACATTT TGGCAATTNC TTAACCAAGC TCTTCTTACC ATAAGATGAA GCAACTCCAC 120
 ACCTTGGTAT TTACCCAAAC GAGTTGAAAG CTTATGCCCA TACAAACACC TGTACAAGAA 180
 TGTCTATAGC AGCTTTATTTC ATAATTGCCA AANCTTGAGG GCATCCAAGA TATCACTTAA 240
 30 TGGGTGGACA GATAAGCTGT GGTACATCTA TACAATGGAA TATTAAGGTG CTA AAAAGAA 300
 ATGAGCTCTG AAGCCACAAA 320

SEQ ID NO:3645

SEQUENCE LENGTH:319

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04299

SEQUENCE DESCRIPTION:

35 GATCGGGATT AATATTAGTG CATTTTAAAA AACTTAAAA GTTTACAAN TGTATTGTG 60
 TATTTCCTGT TTTGGTGCCT GTTTATAGA AGATGATTGA NGAATCACTG AAGATTAAAA 120
 TAAAAAAGGA ATTAGAAATG GAAATGNAT TAGAAATGAG TAATCAAGAA ATAAAAGACA 180
 AATCTGCTCA CAGTGAAAAT CCTTTAGAGA AATACATGAA AATCATCCAG CAGGAGCAAG 240
 40 ACCAGGAGTC GGCAGATAAG AGCTCAAANN NGATGGTCCA AGAAGGCTCC CTAGTGGACA 300
 CGCTGCAATC TAGTGACAN 319

SEQ ID NO:3646

SEQUENCE LENGTH:318

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04300

SEQUENCE DESCRIPTION:

GATCATAGAA GAAGAANCCA GTAATTGANC AAATCCTATT TAATGACATC CTTGTAGCAT 60
 AGATGGTCTA TAATGCTGAC CACAGATTTC TTAGAAATGC TGCTCTCTCT ATTTAACTAA 120
 CATTITGTNC AGTTTTCCT CCAAGTGAAG CAGAAAGGGT TTTNCAGCT GTTAAATCCT 180
 AAAANTCAAT ATAATTNATT TATGTAAGAA AAATAACTCA ATCAATATAT TTTGAACCT 240
 TTTAAGTACT AATTNNNTNT TTATCAAGTA GAAAAAAAT GTATTGCCC TAAATCCTTA 300
 AAATACAAAT GCTATAAA 318

SEQ ID NO:3647

SEQUENCE LENGTH:317

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04302

SEQUENCE DESCRIPTION:

GATCCTGAGG CTTTGGCTGA AATTCTGCTT GAAACTTGTA AATCAATCAC ATATTCTTTA 60
 GAAAATAAGA CCTACTCATC TGTGAGAACA GAAGCTTTAT CTGTGATAGA ATTGCTGCTT 120
 AAAAACTTG AAGAATCTAA ACAGTGGGAA TGTTTGACAT CTGAATGCAG AGTGCTCCTA 180
 ATTGAGTCTT TAGCTACTAT GGAGCCAGAC AGCAGACCTG AACTGCAGGA GAAAGCAGCG 240
 TTACTGAAGA AAACACTTGA AAATCTGGAA TAANTTAGAN GGGGAAGAAA CAAACAAGTG 300
 CCATGTTTAT TGGGGG 317

SEQ ID NO:3648

SEQUENCE LENGTH:317

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04303

SEQUENCE DESCRIPTION:

GATCCTTCTC CTTCCCTGGG ATACAGCACC TCCACCCTGC CAGGCCACCC NTGTAAAGGC 60
 AGCCAATCA GAGCCACCTC TTATGCCTGC ATCTCCCCCA ACAATTCTTG CTGGGAAACC 120
 ACTCCTCGTA TGGTGTATC TACACCAGTG GGTTCAGC TTGAGAAGAA TCAAGTTCTA 180
 CAGGGCTGCT TAAACACAG GTTGCTGGGT CCTGTNTCTC AGAGTTTTTG ACTCAGTCTT 240
 GGTGAGAAT TTTCAGTTCT AGAAGCTCCT GGGTAATGCT AATCCTCCTG TTCTAGGGGC 300
 CATAGTCATT GTCCATN 317

SEQ ID NO:3649

SEQUENCE LENGTH:317

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04304

SEQUENCE DESCRIPTION:

GATCTACAG CGGCTGGCCA CCATCTACCA CAACTNCCTC CTGGACCGTG AGAAGTCGCT 60
 CTTNTTCTAC CAGAAGGCCA GGACCTTCGC CACAGAGCTC AACGTCCGCA GGGTCAACCT 120
 GCCTCCTCTG CCACTCTGCG GGTGGGCCCC CTGGTTGGCC CCCAGCCACC CTNGCTGAGG 180
 ACAGCATCCA AGGGAGTGGG TTTTGTGCAA GGGCTAGGGG TCTCCTGCCT NTCCTGGTGT 240

CGNCGGTGGC TCATTTTCTN GCAAATNGAG GCACGAACGC AGGGNCCAAA TAGCAATAAA 300
TGGGTTTTGT TTTTAAA 317

5 SEQ ID NO:3650
SEQUENCE LENGTH:317
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS04305

SEQUENCE DESCRIPTION:

15 GATCTATGCA ATTTTAAAC TAGTAATGGG CCAATTAATAA TATATATAAA TATATATNTT 60
NCAACCAGCA TTTTACTACT TGTTACCTTT CCCATGCTGA ATTATTTTGT TGTGATTTTG 120
TACAGANTTT TTAATGACTT TTTATAATGT GGATTTTCCTA TTTTAAAACC ATGCAGCTTC 180
ATCAATTTTT ATACATATCA GAAANGNNGC ANTTATATCT AATTATACA AAATAATTTA 240
ACTAATTTAA ACCAGCAGAA ANGTGCTTAG GAAAGTTATT GTGTTGCCTT AGCACTTCTT 300
TCCTCTCCAA TTGTAAA 317

20 SEQ ID NO:3651
SEQUENCE LENGTH:316
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04306

SEQUENCE DESCRIPTION:

25 GATCTGAATT CTAAAGCGTC TTTCATTGTT TACTTTTAGG ATGAGGAAGT ACAGACAATT 60
GGTCAGATAG AACTGTGCCT CACTAAGCAA GACCAGCAGC TGCAAACTG CACCGAGCCG 120
GGGGAGCAGC CGTCCCCCAA GCAGGNNGTC TGGCTGGCAA ATGGGGCCGC CGAGAGCCGG 180
30 GGTCTGAGAG TCTGTGAAGA TGGCCAGTC TTCTATCCCC CACCTAAAAA GACCAAGCAT 240
TGATGCCCAA GTTTTGGAAA TATTCTGTTT TAAAAAGCAA GAGAAATTC AAACTGCAG 300
CTTTCTAAAA AACAAA 316

35 SEQ ID NO:3652
SEQUENCE LENGTH:374
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04307

SEQUENCE DESCRIPTION:

40 GATCCTTGGG TTGTAAAGAG AGTAGAAACC CTAGGNAGCA GTGCTTTTGG GTCCTAGAAC 60
CTGTTGAGTT TCTAATGAAT ATTTGTAGAA TCTNATAAAA CAGTTTAAAT ACAAGCTTAA 120
GTGGCTTATG AATCCTGTNA AGCTCATTTA TGGNCTAGTG TAAAACAATG TGAAGCTCTA 180
45 CTAAGTNCTG TCCTTAATCA TAAATAATAG CCCCTTGNGG NCTAGCCTGT CCTCTGGTCA 240
CCTTACCAGT TGGGTTGCAC ATTGTGTGGT CGTCCAATTA AACTCAATCT TNCGTGTGNC 300
AGGNGNTAGT CTNTCCAATC ATGNCATAGN TTTCATCTGG TTTTGNCTG GTGGACGNAC 360
CTTCGGANTA ANTN 374

50 SEQ ID NO:3653
SEQUENCE LENGTH:316

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04308

SEQUENCE DESCRIPTION:

GATCAGGACC AACCTGGAAA ATGCCAGATT TGGCTATGCT TTTTAANACA TTNATTTGGA 60
 CAGCTCACCA ACCCCTGAAG GGGCCGTAA GCCTGGTTAG TTTNTACCT ACTCCGAGTN 120
 TCCTCCCCTG CCCCACCAGA TTGCTGCAGG GGC CGGTGT GCCTGGNAGC CAAATTNTTG 180
 ACACTTCTTT TTTCTATGC ACTGGTTTA CACAGCTGTN ATTTTNTTT CAAAATTGCA 240
 GCAGTCCAC AAGATGTNTG CATTTGGACA AATAGTACTT AAAACAAAN CAAACAAGCA 300
 CTCAGCCCAG TTCCTN 315

SEQ ID NO:3654

SEQUENCE LENGTH:315

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04309

SEQUENCE DESCRIPTION:

GATCTAATGC AGAACTATC AGATATTGTG AAAAATCAGT GTGGGAGGTA TTCAGTCAAA 60
 AGTCAGAAGG AAATGTATTA TCGTTATAAT TTCAAACCTT AAGAAAGCCT AAATTACCAA 120
 TTGCATATCA AATTTTTTTG ATAATGTAAG GAAACCTAA ATCCCCTCCA TATCCTAATT 180
 GGCATTATA ATAATATGAC ACTTAACCTT GACAGCTAGA GTCTTACTTT ATGCTAATGC 240
 TAGATATCTA TTTTNAANTT CCACGTGTGT AAACATGCTA TACTCTTCTG ATATTAANCT 300
 TACTAAGTAC ATAAA 315

SEQ ID NO:3655

SEQUENCE LENGTH:315

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04310

SEQUENCE DESCRIPTION:

GATCCAAGAA GAACTAGAAA AAAAGTTGTT TGCAGGCTTG CAACCTCTCA NAAATTTTAA 60
 GGCTAGCTCT TCAACTATGT CTTNAAAAA GAATATGTCT GCCCAGCA GCCAGAAGTG 120
 ACAGCATTCT TGTGAATGTT TACATCCTGC TGCTGATAGG TTCAAGGAAT TCTTTAAACC 180
 AGATTCTGCT GACATGAGAA GCTCCAGTGA TTTGTTTTT TGAAGGCTG TATCAGAGCA 240
 AGCCTAACAT CTAAATAANG TTTGATTCTG GATTTCCAG GTGGGAAATA AATAAGAAA 300
 ATTTGGCTTG TCAA 315

SEQ ID NO:3656

SEQUENCE LENGTH:347

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04311

SEQUENCE DESCRIPTION:

GATCCGTGCC CGCNTCCAGG AGAAGTTGTC ACCTCCCTAC AGCTCCCCAC AGGAGTTTGC 60
 CCAGGATGTG GGCCGCATGT TCAAGCAATT CAACAAGTTA ACTGAGGACA AGGCAGACGT 120

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GCAGTCCATC ATCGGCCTGC AGCGCTTNTT NGAGACGCGC ATGAACGAGG CCTTCGGTGA 180
 CACCAAGTTC TCTGCTGTGC TGGTGGAGCC CCCGCCGATG AGCCTGNCTG GTGCTGGCCT 240
 GANTTCCCAG GAGCTGTCTG GTGGCCCTGG TGATGGNCCC TNAGGCTGGG GGGCCCATGG 300
 TCAGCCCAGN NTGGGTTCTG TTCTNTGGNN CTTGTCANNC NNAANCN 347

SEQ ID NO:3657
 SEQUENCE LENGTH:313
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04312
 SEQUENCE DESCRIPTION:

GATCATAACT GAACCAGAAT TTGGATTATA GANGTGCACT TCCTAGCTGT TTTTATTATA 60
 GGTATAGGAA CACACAATGA GAACCTTATG TTTAGAATGT AGCAGTAACA ACAGAGGGTA 120
 ACTACACTGC AAGACTTAAA TGGTTTGAGC ATGTGACACT ATCCTTTTGT TGGGGGGAGC 180
 AGGGTATAAN ANTATACATA CAGGAGATTA GTTTAATAGT AAAGTTTAT ATGTATGTTT 240
 AACTTCCATG ATATTTATNA TTTNGTAGAG ACATTGTGA TTGNTAGAG TTCTNGTNTT 300
 TTTTCTATTT ATN 313

SEQ ID NO:3658
 SEQUENCE LENGTH:307
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04313
 SEQUENCE DESCRIPTION:

GATCTTAAAA GTGGAAAGCA GAAAAAATAC TGTTTCCTGA AATTNAAAAG TTTTGGCAGT 60
 GCCCAGCAGG CCCTCAACAT TCTCACAGGC AAGGACTGGA AGCTGAAAGG CAGGCATGCC 120
 CTAACCCCA GGCACGTCCA TGCCTGGNTC AGAGGCTTAC CACCTGANTC AACAAGGCTC 180
 CCAGGGCTTC GTGTTGTACC TCCCCCTTT GAACAGGAGG TCTGCAGAC TCTGAAACTG 240
 GACCACCCGA AGATAGCAGC CTGGCGCTGG ANGCCGGAAG ATTGGAAGC TCTACAACAG 300
 TTTGTGN 307

SEQ ID NO:3659
 SEQUENCE LENGTH:306
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04314
 SEQUENCE DESCRIPTION:

GATCCCCAGA GAGGTGGCCC TGGACCTGGA GTCAGGAGGC GGTGTCCAGA AGAGTCGCTC 60
 ATCAACCCCG GGTTCAGAG TAAGAAACCA GCTGGTGGCG TGGACTTCGA TGAGACCTGA 120
 AGGTGCAGCA CAAGCGTGGC CCCGCGGGGA GTCCGCCTAT NAGGGGAGAG GCAGTCTTTG 180
 AGGCCCCCAT CAGAGACCCC CCGCCACCAC CTCCACCTGC CTGTCCTGGG CCAGGACTAA 240
 CACGGCTCCT CAAATTCCTT CCCTGTCAAA TAAACAGCTC CCTTGGTTGG AGGCTCTNGT 300
 GGGAAA 306

SEQ ID NO:3660

EP 0 679 716 A1

SEQUENCE LENGTH:371

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04315

SEQUENCE DESCRIPTION:

GATCCCCTGA GCAAGTCAGA AGTTACTCTC ATCAGTCGTT CATGGTCACA ACCTGAGGTA 60
CTCTGCTGAG TGGGCAAGGC TGAAGAAGAG GCCTGTGGAA TGCAGCATTG CCTGCTGGAC 120
AGAGCAGGGC AGGCAGTTCT ATGCCCTTGA GCTCCTGACT GCAGGGACTC TGTCCCCACA 180
CTCAGAAAGA CTCAGCTCAC TCAATGAGAG AATGTGATTT ACTTTATAGA ACGTATAATC 240
AACTTTGTTG AATAATTTGT TCTATTAAGG CTGTCTAAAG TATGTNATGT CTTCATCATA 300
GTATGAAGTG TTGAAAATTA ATAACGGGCC TAGTTTAGGA AAAAGCTGCT TAAANGNGTG 360
TGGCCCGTAN N 371

SEQ ID NO:3661

SEQUENCE LENGTH:304

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04316

SEQUENCE DESCRIPTION:

GATCTGTATT GATATTTGAT AGTGAAAATG TTTATTCAAT TTTTCCCCAA AATGTATTTG 60
TTCTCTTAC TTGTTTATTC AGCTGTGGTG ACTTCAAAAT ACTTTTCCA GGTGACAAAA 120
AAAAACTCAG AAAAATTTT AATCTTAATT GCATTAATAC TATAAATTGA TTTGGAAGGA 180
TTTAACATTT TATAATATNG GNNTTCTCT GCAGTAATGT GGCATATTCT TCCNNNGTT 240
CAAGCATTAA AAAAATCTCT TAGCAAAGCT GCACAGCCTT CTTCATAAGG GTTCTCTATA 300
TTTN 304

SEQ ID NO:3662

SEQUENCE LENGTH:303

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04317

SEQUENCE DESCRIPTION:

GATCTGCGGT GGGCCAAGAG TATCCAGGGA GAAACCTGTC CCTGGCAGGG CTGGAGCAGG 60
GACTCTCCAG GCCCAGCTGA GGCCTCCTGC TCTGCATGGC AGGGGACATC TCTNACCTGG 120
TCAGGACCCT GGAGGTGGGA CAGCTGGTGC TAAGGGAATG TNAGCGCATC AGGGTTGGGG 180
AGAAGCAGTG GGTGGTCCAG GAAACCCCTG AAACAGCTGG CCCTGGGGTC CCCTTTCAAG 240
TGTTTCCAGT TGTGGCAAGG GGTCAAGGAG ACCTTGCAAT GCAAATCTNT TAGAAAAAAC 300
AAN 303

SEQ ID NO:3663

SEQUENCE LENGTH:302

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04318

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

GATCTGAAAG ATTACATTTA GAACATTTAG TACTATTACA CTCTCAGAAA .CTGTNGTAAA 60
 AAGTCACATT TTCAAAACCT CATGCATATT GTATTCTTGT TGGAAATAAG TCCTATAGTT 120
 TCTTAATTGT CTTTCATGCCG TCCATATTTA ACAAACATTG CAAGTCCTTT TTATATTTGG 180
 5 GTAATNATTT GTAATTTAGT GAAGGAGACT AGGGGATGTT TTCTTCCAAA GGGAATTTAA 240
 AATCAATTTT ATGGTATTTT GAAAGTAAAA TACTCCTTAA CGTGTCAATA TTTTAAAAAT 300
 GN 302

SEQ ID NO:3664
 SEQUENCE LENGTH:301
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04319

SEQUENCE DESCRIPTION:
 GATCCTCTCA GAGTGCCAGG CATCCCCCCC GNACCAGCAG AGGCTCATCT TTATNAGGCA 60
 AGCAGCTGGA AGATGGCCCG ACTCTTTNTG ACTACAACAT CCAGAAAGAG TCGACCCTGC 120
 ACCTGGTCCT GCGCCTGAGG GGTGGCTGTT AATTNTTCAG TCATGGCATT CGCAGTGGCC 180
 20 AGTGATGGCA TTA CTCTGCA CTATAGCCAT TTGCCCAAC TTAAGTTTAG AAATTACANG 240
 TTTTCAGTAAT AGCTGNACCT GTTCAAANTG TTAAATAAAN GGTTCGGTT GCATGGGTAA 300
 A 301

SEQ ID NO:3665
 SEQUENCE LENGTH:300
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04320

SEQUENCE DESCRIPTION:
 GATCTGAAAA ATGAAGTTTG GTATCAAAAA NGTCATGACC CTGTATGTAA AGCAGAAAAAC 60
 TTCAAATCTG ACTGTTTCCC ATTACCTGCT GAAGTATGTC TCCTGTTTCT TTTCAAAGAG 120
 GAAGANGAGT TTACAACAGA TGANGCAGAT GAAACTAGGA GCAATGAAAC CCAGAATCCT 180
 35 CATAAACCAT CACCTAGCAG GCTGTCAACA GGTGCATCTN CTGATGCTGT CTGGGNTAAT 240
 GGCATTGATG ATGCTTATTT TTTAGAAGCT ACTGAAGATG CTGAATTAGC TGAAGCTGCN 300

SEQ ID NO:3666
 SEQUENCE LENGTH:300
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04321

SEQUENCE DESCRIPTION:
 GATCACTNAA TGGTCAAGTG GAACAAGCAC TACACGACTA ACCCCTATTG GGGTTTTTAA 60
 CTTAAGGGAG GCTAATTTTT AATTTAACT GCTCGAGATA TGAGTTCTGC AAAAGGTGGT 120
 CCGCATCCTT GGCCTCTGG ACATTATCAC TAAATTGCTT GTGCCTGTTA ACAAGAATAC 180
 TGACCAGAAT GCTCTTCATG TAGCTTATAC AGTTGGTTCA CTTTCATGCGG TTCTTGACAT 240
 50 GTTTATTCT ACCCTTAATG CAATGAAATG TTTCATTAAT AAAAAACCAC TTTATATAAA 300

SEQ ID NO:3667

SEQUENCE LENGTH:417

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04322

SEQUENCE DESCRIPTION:

GATCTTTCTG GCTCCACTCA GTGTCTAAGG CACCCTGCTT CCTTTGCTTG CATCCACAG 60
 ACTATTTCCC TCATCCTATT TACTGCAGCA AATCTCTCCT TAGTTGATGA GACTGTGTTT 120
 ATCTCCCTTT AAAACCCCTAC CTATCCTGAA TGGTCTGTCA TTGTCTGCCT TAAAAATCCT 180
 TCCTCTTTCT TCCTCCTCTA TTCTCTAAAT AATGATGGGG CTAAGTTATA CCCAAAGCTC 240
 ACTTTACAAA ATATTTCTCT AGTACTTTGC AGAAAACACC AAACAAAAAT GCCATTTTAA 300
 AAAAGGTGTA TTTTCTTTT TAGAATGTAA GCTCCTCANG AGCAGGGACA ATGTTTTCTG 360
 TATGTTCTAT TGTGCCTAGT AACTGTAAA TGCTCAATAA ATATTGATGA TGGGAAA 417

SEQ ID NO:3668

SEQUENCE LENGTH:298

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04323

SEQUENCE DESCRIPTION:

GATCTCTGAA AGCTCAAATG GATGGAATTT AGTTTGGGG AAAGAGGCTT TGCTTTGCGC 60
 ATATCAGGCT TAGGACTGTG GGAGGCTTAA GAAGCAGATG CTTCTTNAT TGTACTCTTG 120
 TNCTGCCCTT GTTTTTGAA GGCTCTGACT TATAACTNCT GTATCAGAAG AACATTTTG 180
 ACAGTGTCTT GGTGGAGAT GAACATCCCT AATTGACATG TGATGACTAT TTCTNATTCC 240
 ATTCACTTAA GAGTCATTGA AATTTTGTTT TGCTTGTTG TTTAGCTTCA AGGTCTTN 298

SEQ ID NO:3669

SEQUENCE LENGTH:294

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04324

SEQUENCE DESCRIPTION:

GATCATCTCT ATATCTAATT TGTATTATNA CTAATCTTAT TCCAACTATT TNCTTTATNA 60
 TACTGAAACA GTTTGTNCCT TCAGTCTCTG CTTGGGCTAC CTAAGGGA AGGGCCCCCT 120
 ATCCTGTAAT CACATGACTT ACTTCACCTT GTCAATCACT GAGAAGATTC ACCCTCCTTA 180
 CCCTGCCCTT TTGTCTTGTA TGCAATAAAT ACCAGTGGGC CTAGCCCTCT GGGACCACTA 240
 CCGGTCCCGG GGTCTTGATG GTAGTGGNCC CANAGCCCAG CTTGCNTNCN CAAA 294

SEQ ID NO:3670

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04325

SEQUENCE DESCRIPTION:

GATCAAGAGG CCACCAGTTG TACTTCAGCA CCAATGTGTC TTACTTTATA GAAATGTTGT 60
 TAATGTATTA ATGATGTTAT TAAATACTGT NCAAGAAGAA CAAAGTTTAT GCAGCTACTG 120

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TCCAAACTCA AAGTGGCAGC CAGTTGGTTT TGATAGGTTG CCTTTTGGAG ATTTCTATTA 180
CTGCCCTTTN NTNCTNACTG TTTTATTACA AACCTACAAA AATATGTATA ACCCTGTTTT 240
ATACAANCTN GTTCGTAAT AAAACTTNTC CCTTTTTTTA AAATGNAANT AAA 293

SEQ ID NO:3671

SEQUENCE LENGTH:292

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04326

SEQUENCE DESCRIPTION:

GATCTATAGT ATTTTAATGT GCATCTACTT TAAATNAGTC ATCTTGGGGT TTNATAATT 60
CCCTTATGTT CTGCCCCTC TACACTTGAA ATAACAAAAT GCCTTAATTT TATGGATTAG 120
TTCTCTTATA GTAGACAGGC AGCTATATGC AGCAAAACCA ATAAAGTTAT TTTCAACTT 180
TCATAGTTGT AAAATATCTT ATAACAGAAT ACAAACAGC TANGAAAACA TGCCACATT 240
NATTTNGCA TTTTCAAATA ATTNGTTTTT GGTGTAAGCA CAGGATAAAA AN 292

SEQ ID NO:3672

SEQUENCE LENGTH:291

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04327

SEQUENCE DESCRIPTION:

GATCAAGGAT GCAACCTCAG GTTGAGAAAG AAACAGGGTT CCCTGGGCCC ATTAGACTGT 60
TTGCAGGGCA TCACTGCTTC CCCCTGACAC CTCACAATA GCAAAAATTG TCTTTGTCTT 120
TGGAATNAT AGAGGGATT GGGTATCCAG ATTGTGCAGA TGCAAACTTA GGCTGTCTTG 180
ATGNNNACTT AGAACCACAG AAATGCTTTT AAAATGCCTG TTTTAAGATG GAATTGTTGT 240
TTTNATAATT TGATTTTAGT GCTAAATAAA TGATTGGCTT TGTACATGAA A 291

SEQ ID NO:3673

SEQUENCE LENGTH:291

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04328

SEQUENCE DESCRIPTION:

GATCTAAAGG CTCTGGNTTT GCCTTCTTTC AGTCTGACAC TGACTAACAA CCTCGACAAG 60
GTGGGCATAT ACCTGGATTA TGAAGGAGGA CAGTTGTCCT TCTACAATGC TAAAACCATG 120
ACTCACATTT ACACCTTCAG TAACACTTTC ATGGAGAAAC TTTATCCCTA CTCTGCCCC 180
TGCCTTAATG ATGGTGGAGA GAATAAAGAA CCATTGCACA TCTTACATCC ACAGTAATGA 240
GTCATAATAT TATACAAATT CAGAGTGTTA TTAAAGAGGT TTTGAAATAA A 291

SEQ ID NO:3674

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04329

SEQUENCE DESCRIPTION:

GATCCCAAAA GCTGTTTTNA GGTATAAGGA CAAGGAGAGG AGACAAGTGA CGACAGCCAT 60
 TCCCCTTTGC AGCTATCTAC TGTAGTGACA GCCATTCTT GGTGATGGG TTGGAAGTCA 120
 TCAGAGGTTT GAAGAATTAC ACTGGCCTTT GTTTTCNNG AAATGCCGAC CATGGAGATG 180
 CTTTAGAGTC TTCTCAAATA GCTTAGATGT TGTAAATGNGG TTAAGCTTTG CTTCATAAAA 240
 CAGGGGCCCT CAGAAGTTCT CCTTTAAATT TTTCANATAA AAAATTTAAA 290

SEQ ID NO:3675

SEQUENCE LENGTH:288

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04330

SEQUENCE DESCRIPTION:

GATCTATCCC TGTCTACTG AAAGCCCCTG TGTAGTGTCT GTGTTGTTTT CCCTTGACCC 60
 TGGNNTTTC TATCCTCCCA AAGACTCAGC TCCCCTGTTA GATNGCTCTG CCTGTCCTTC 120
 CCCAGTCACC AGGGTGGGGG GGACAGGGNN AGCTGAGTGC ATTCATTTTG TGCTTTTCTT 180
 GTGGGCTTTC TGCTTAGTCT GAAAGGTGTG TGGCATTCTG GGCAATCCTG TAACCTCAAC 240
 ATAGATTTT TTTGTGTGTG TGGAAATAAA TCTGCAATTG GAAACAAA 288

SEQ ID NO:3676

SEQUENCE LENGTH:285

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04331

SEQUENCE DESCRIPTION:

GATCAACCCC TGACCTAATC GGTATGTTA TCTACAGATT ACAGACATTG TATAGAAATG 60
 CACTGTGAAA ATCCCTATCC TGTTTTGTTC TAATCTAACT ACCGGTGCAT GCAGCCCCCA 120
 GTCATGTACC CCCTGCTTGC TCAATCAATC ATGACCCTCT CACACACATC CCCTTAGAGT 180
 TGTGAACCTT TAAAAGGGAC AGGAATTGCT CACTTGGGGA GCTCAGCTCT TGAGACAGGA 240
 GTCTTGCCAA TGCCCCCTGGC TGAATAAACC CCTTCCTTCT TAAA 285

SEQ ID NO:3677

SEQUENCE LENGTH:285

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04332

SEQUENCE DESCRIPTION:

GATCACAAAA ATGGAACCCC CTGTTTCATG CTTCTACAGT CCAGCCAGCC AATCTGAAGA 60
 TGTCATTCTT ATAAAAAGT ATGACCAAAT GGCTATCTNC CACTGTTTAT NTTGGCCTTC 120
 ACTGACTCTG CTAGGTGGTG CCCTGATTGT TGGCATGGTG AGATTAACAC AACACCTGTC 180
 CTTACTGTGT GAAAAATATA GCACTGTAGT CAGAGATGAG GTAGGTGGAA AAGTACCTCA 240
 TATAGAGCAG CATCAGTTCA AACTGTGCAT TATGAGGAGG AGCAN 285

SEQ ID NO:3678

SEQUENCE LENGTH:282

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04333

SEQUENCE DESCRIPTION:

GATCTCTGTG TTTGCAGTCA AAGGGCGGCT CACACATGGT CAAGTATTAT AAATNTCCTG 60
TGTATCTNAC AATGGAATCT ATTCTACAAT TTTAAGTATA CGCTTCTGT ATATGGCCAT 120
TAAGTGAAGC TTAATAATCT TGTNTTNTCT GTCCTCATAG ATATTTAAT CTGTGGCATC 180
CTCCTGTAAT CTCAGCATTT TGGGAGGCTG AAGATGAGAG GGTGCTTGA GGCCAGGAGT 240
TCAAGACAAA CCTAGGCAAC ATAGCAACCC TGTCTCTCCA AA 282

SEQ ID NO:3679

SEQUENCE LENGTH:280

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04334

SEQUENCE DESCRIPTION:

GATCTGAGGT GATATGTTCT GAATGTAAGC ACCGTCAACA TCAGACACCT ACTCATGGAC 60
ATGTGGTTGC CGGATTTTCT TAAGATGTTT CCAGAAATGA CTGATATTTT ATATTATAC 120
ATTTTAGATG ACAAAGCTTG ATATTTATTG CTGTCGCACA TTTTAAAGTT TTCCTTTTGG 180
GTTGCTCTGT GNCANGGCGT GGTACATGG TGNTAAATCG GTACCTGATA ATGTACCCAA 240
ATACTATGGC CAGATAATAA ATTGNGGTGC AAACAACAAA 280

SEQ ID NO:3680

SEQUENCE LENGTH:278

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04335

SEQUENCE DESCRIPTION:

GATCACTGTG CAGTGGGACC ACCCTCACTG GCCTTCTGCA GCAGGGTTCT GGGATGTTTT 60
CAGTGGTCAA AATACTCTGT TTAGAGCAAG GGCTCAGAAC NCNNAATAC TGTCATGGAG 120
GTGCTGAACA CAGGGNNGGT CTGGTACATA TTGGAAATTA TGAGCAGAAC AAATACTCAA 180
CTAAATGCAC AAAGTATAAA GTGTAGCCAT GTCTAGACAC CATGTTGTAT CAGAATAATT 240
TTTGTGCCAA TAAATGACAT CAGAATTTTA AACATAAA 278

SEQ ID NO:3681

SEQUENCE LENGTH:277

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04336

SEQUENCE DESCRIPTION:

GATCANAGAN TNACAACTGT TCATTATAGT GGTGCCTTAG GCAATCTTN CAAAGTAAAT 60
TCAGGGCCCC ATTGCTACTT ATGCCATATT TGGACATACT TTTTITTTCT TCAATTTTGT 120
AAACTTCCTG GAAAGCTGTC TTCCTAAGT ATCCCNAGT CTCTATCTAT GNGGNTAGTA 180
GTCATGGAAA TAACACATAA AGTACGCCAG NAGTTNGNTG GAACGTGTTA GAAACTGTTT 240
TGTGCTTTNA TGGATGTCAT ACTTGNCANT ACATGTN 277

SEQ ID NO:3682

SEQUENCE LENGTH:275

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04337

SEQUENCE DESCRIPTION:

GATCTTTCTT TACTTGATGT GTCCTTCNT TCGCAGATTG ATAACAGAGC TGTGCTAGAA 60
 CTGAATGCAA GCTTTCCAAA ANTNITCATA AAAAAAGCT TTAAGTCACTG ACTTAATATA 120
 TGTNCTGTAT TAAAAATTAAT GTGCTTTGTT GGGGTTTAAT TTTGGNATTG GTTTTGGGTT 180
 TTNTTTTGTAG TTGTTTAAAT GGTAAGAATT AAGACATTTT NTAGATTTTA AAGAAAAATA 240
 TGAAATTNTC CATTAAATCA AGTAAAAATG TGAAA 275

SEQ ID NO:3683

SEQUENCE LENGTH:269

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04339

SEQUENCE DESCRIPTION:

GATCTCCGCA GTCTTCAGCG CATTGGCCCG AAGAAGGCC AGCTAATCGT GGGCTGGCGG 60
 GAGCTCCAGC GCCCCTTCAG CCAGGTGGAG GACCTGGAAC GCGTGGAGGG CATAACGGGN 120
 ANACAGATGG AGTCCTTCCT GAAGGCAAAC ATCCTGGGTC TCGCCGNCGG CCAGCGCTGT 180
 GCGGNCCTCT GACCGTCGTC TCCTCACTCC GNCTTTTCAA ATTTTGTAT AACCCCGTGT 240
 TGTGTAAATA CAGTTTTTGC TCCGGTAAA 269

SEQ ID NO:3684

SEQUENCE LENGTH:266

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04340

SEQUENCE DESCRIPTION:

GATCAGGCCA GTAGGTTGTG AATGCAGGCT GGAGCCCCCG AATGCCCCAN NCACACTGCA 60
 GCATTGACCA GACCATCCGA AACCTGCGTC CCTGGTGATG TTCTCAAGCC TCGGAAGTGG 120
 CAAATGGAAA TAATATGGCC GGTTCGGGTT GTAGGAGAGT TGTGACTTAG GCAGGAGTCG 180
 ACCTCCTCAA GTAATGGAAC GATTTCAAAG GCAGGCTGCC CTGACCAAAA ATATCTGCCA 240
 TGAATAAAGG TGCTGAAAT CCTAAA 266

SEQ ID NO:3685

SEQUENCE LENGTH:266

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04341

SEQUENCE DESCRIPTION:

GATCTACTTT CAGGATTATT TTTGTNTTT GAACGTGACA GTNTGGATGA GGCAAGTNAG 60
 TTAGATGCT GCGACCCTGC GAGAAGCAAT AGCTAGTGAA CACATTAGCT CCCTACATGG 120

EP 0 679 716 A1

GACGCAGCTC CCTCTGACAT GTGTCTCTGC CCTTAACCAA GACAGAAAGG GGGTAAATGG 180
AGGATTGGNT TACTGTCTTT GCTGGTTAGT TTTGTGAAAT TTAAAAATG TTCAACTTTT 240
GANTAAACTC CTTTAAACTT CTAAAA 266

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SEQ ID NO:3686
SEQUENCE LENGTH:270
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04342

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SEQUENCE DESCRIPTION:
GATCTCCTTC AGTNGTCTAC CCACTTCCGT CATTGTCCTC CGCTAGAATA ACAGAGTAGT 60
TGGTAGTCAT GGCCAGAAGG GGGGTGGGGG CAGTGTGAGG ACTTGGGGTT TCTGTGCTGT 120
GTGACACAAG GAGATAAGTG ACAATNTGA AGTCCTAACT TGCCTATTC TAGAAAGTAT 180
AGTGGTGATT TTTGTGCAA GATTGAAAGT TTAAAAAAG TACCAAGTTC CTGAAATTCA 240
ATAAAATATT TTTATTAATT TTAATGGAAA 270

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SEQ ID NO:3687
SEQUENCE LENGTH:264
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04343

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SEQUENCE DESCRIPTION:
GATCTCAGCT CACTGCAACC TTCACCTCCC GGGAGCATGC TGCTCTATCT TTTTTTNCAG 60
ATGTTTGAGC TATCCAGGT TTTTGGGAT TTCTGTTGNT TTGTTTTGTT TTTTGCTTTT 120
CTACATAATT GTTTGGATAA TCTTGTCACT ATCTACGAAG TGCCTTGATA GTAAATATAT 180
NAACCCTGTG TATCAATNTG GGGTAATTNC ACATNTTTTT CTATGTTGAG TTATCAATAA 240
ATTGATATTG TATATGNCTC TAAA 264

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SEQ ID NO:3688
SEQUENCE LENGTH:262
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04344

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SEQUENCE DESCRIPTION:
GATCCTCAGT GCAAAATGTC TTGTGTANTT NTNTGTGAAT CCATGGGTCT GGCTAGAGGG 60
CCCAAAGCTT GTAAATATGG GGATAGTCTG GGTGAGACCC ATCTNTCCCT TACCCATCTT 120
GCTTCCAAGA CCATTGTAG TGAGCGAGTG GATGCTGTGC TACGTGTGAA ATCTGTCTTT 180
GCGGGGCCTG TCTCAGTGAT TCGNTTTTGG TATTNGTTTG TAGCTTTCCT GGAAGTCAAA 240
TAAATGTTTC CCCCCTCCA AA 262

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SEQ ID NO:3689
SEQUENCE LENGTH:256
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04345

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SEQUENCE DESCRIPTION:

GATCTCAAAAT GTGAACAGTT TACTAATGCA CTACTGAAGT TTAAATCTGT GGCACAATCA 60
 ATGTAAGCAT GGGGTTTGTT TCTGTAAATT GATTTCTAAT NTGAAATTAC TGAACAATC 120
 CTATTCCTCAT TTNGCTAAN CTCAATTTCT GGTTTTGGTA TATATCCATT CCAGCTTAAT 180
 GCCTCTAATT TTAATGCCAA CAAAATTGGT TGTAATCANA TTTAAAAATA ATAATAATTN 240
 GGCCCCCCT TTAA 256

SEQ ID NO:3690

SEQUENCE LENGTH:251

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04346

SEQUENCE DESCRIPTION:

GATCTAAAAA GCTGAATAGC ATGTNAGTTA CTTGGTTTCA ACTTGAGTTT NCTTTTAATG 60
 TTAATAAGAT TGAACCTTTA GTATTTAGTG GGAATGGAA AGAGTTGCC TTGTTGCAAG 120
 TAATGAAGCC TGATTGATT ATGAAGCTGC TTAATCACTC TTCATGTGTT CAGAATTACT 180
 GTTTTNTTG TTTGTTTNC CTTTNGTCA CTGTGGTACA TTAATAATT NGGAAGATG 240
 CTTTACCTAA A 251

SEQ ID NO:3691

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04347

SEQUENCE DESCRIPTION:

GATCCCAGAC CTGTNGTCTC TCCCACCCC TCCCCAAAGC CACTGGAAGG AGCACATACT 60
 ACCTAGAAGT AAGANGNNGA GCCTCAGAAG AAAACAAAGT TCTATTTTAT TAATTCCTA 120
 TGTGTTGTGT TTGTAGTCTT GTCTTAGCTC TGGACGTGAA ATACTTCGAT GATGATGATG 180
 ATGATGATGA TGATAATAAT AATAATAATA ACAACAACAA CAACAATAAT AAAGATGTGA 240
 AAACTCGAAA 250

SEQ ID NO:3692

SEQUENCE LENGTH:248

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04348

SEQUENCE DESCRIPTION:

GATCTCAGAT AACTCAGTAC AGATAGCAAT TAGTCAGCTG ATTTGATTAC AATGGAGTAA 60
 CCGACAATAT ATTTATTTAT AAAGCACATA TTCATAATAA CGAGAAGAAT TCAGAAAACC 120
 ACTTAAGCAA GACCCTTCTG AAATAAANN TGNGCTTTT TAAATAGTTT GTCCTAAGGT 180
 GTTTAAANCA TGTCAACCTT ATGTAAGGNN AANTTCCTG GTCCAANTAA NGTTGANGTT 240
 TAAGGAAA 248

SEQ ID NO:3693

SEQUENCE LENGTH:248

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04349

5 SEQUENCE DESCRIPTION:

GATCCTGGTT GGAAGGATGG GGACTCTCTC AAGGGGCTTT GGAAGAGCTC TTCTAGCCCT 60
 TTATAAAAGG AGGGCAGCAG CTGAGACTGA TGAGAGGAGG GCAGCCTGCT CTGTTCTTTC 120
 AGGGCCCCC ACCCCATCT CCCCTACCCT AGCCCACCCT AGGGCCTCTA CCCAGCGGGA 180
 10 GGGGTTGAAG ACCAGGCCTG GTTTTATTAG AATTCATTTT GTAATAAAAG CCTTTTTTAG 240
 TGGTGAAA 248

SEQ ID NO:3694

SEQUENCE LENGTH:248

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04351

SEQUENCE DESCRIPTION:

20 GATCCTATTT TNATGAAATG TCCAGAACAG GCAAATCCAC AGAGACAGAA ACTAGACGAA 60
 TGGTTGCCTG AGGGTGAGGG GAAACAGGGA GTGACTGATG ATGGGTTTTG TGTGGGGGCA 120
 ATAGAATGTN CTAATAATTG ATAGTAATGG TTATACAAC CTGAATATAC TAAAAGCCAT 180
 TGTACACAG TTAATAAGGG TGGATTGTAT GTGAATTCTA TCTCAATAAA GCTGTTCAAA 240
 25 AATTCAAA 248

SEQ ID NO:3695

SEQUENCE LENGTH:245

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS04352

SEQUENCE DESCRIPTION:

GATCCACTCC GCCATCGATG CATCCCAGAC CCCCAGATGTC GTGTTGCGAA GCATCCTAGC 60
 35 AGCCTTCTCC AAAGCCACAT GTAAAGACTT GGTATGTTT ATCTAATGTT GGGTCCAAGA 120
 AGGAATTTCT TTCCATCCCT GTNAGGCAAT GGGTGGGAAT NATAGGACAG GCAAAGAGAA 180
 GCTTCCTCAG GCTAGCAAAA ATATCATTTN ATGTATTGAT TAAAAAAGCA CTTGCTTGAT 240
 GTAAA 245

40 SEQ ID NO:3696

SEQUENCE LENGTH:243

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45 CLONE:HUMGS04353

SEQUENCE DESCRIPTION:

GATCTCAAAA CCACTATTTT TATTATTCA TTATTTTCA GAGGCCTTAA AATTCTGGAT 60
 AAGAGAATGG AGGAAAATAC TCANCGGTAC TTCATTATTT NATTTCTTTT TATTAAAAAA 120
 TTACTTCTAT GTTTNATTG TCTCTTGAGC CTTAGTTAAG AGTAGTGTAG AAATGCATGA 180
 50 NCTTCATCCT AATAAGGATA AANCTTAAGG AAAACCACAA TAAACCATGA AGGTGTACAC 240
 AAA 243

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SEQ ID NO:3697

SEQUENCE LENGTH:241

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04354

SEQUENCE DESCRIPTION:

GATCTNTCCA CGGTAGCACT TGNCCTTTTC GACGCTTAAC CTTTCCGCTG TCGCCCCAGG 60
CCCTCCCTGA CTCCTGTGG GGGTGGCCAT CCCTGGGCCC CTCCACGCCT CCTGGCCAGA 120
CGCTGCCGCT GCCGNTGCAC CACGGCGTTT TTTTACAACA TTCAACTTTA GTATTTTAC 180
TATTATAATA TAATATGGAA CCTTCCCTCC AAATTNTTCA NGTAAAAGGT GGCTTTTCAA 240
A 241

SEQ ID NO:3698

SEQUENCE LENGTH:239

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04355

SEQUENCE DESCRIPTION:

GATCAGCACT GCACTNTTAG CTGAGAGTGC GGGCAAGACA TAAACTGTCC AGAGTTTNA 60
GNTTCTNGGA AAGACCGGAG GGCTTCTCCC CACAGAAGGC GGAGAGAGCT GGGNCTCAGA 120
CATGGNTGTG CACCTTAATA AACCTGTG TCTGCCTCCC TGA CTCTGCT TCTNNGGAGC 180
ATGGTGAGCA GCCCTNGTGC TCANCAGCCA TACCTATGGG ACACACACTA CGNAAAGGN 239

SEQ ID NO:3699

SEQUENCE LENGTH:236

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04356

SEQUENCE DESCRIPTION:

GATCACAGGT GATTCACACG TACACACATA AACACACCCA CCAGTGCAGC CTGAAGTAAC 60
TCCACAGAA ACCATCATCG TCTTTGTACA TCGTATGTAC AATGCAATCA TTTTACTACTT 120
TAAACTGGTC AAAAACTAA TTGTGATTTC TAGTCTTGCA AAGCTGTATG TAGTTAGATG 180
ATGTGACAAC CNCTAATATT TATCTAATAA ATATGTATTG AGATGAAACC TGTA 236

SEQ ID NO:3700

SEQUENCE LENGTH:235

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04357

SEQUENCE DESCRIPTION:

GATCCATCCT TTATCAGGAA GTCTGAAGCG ACTATAAAGG TTTTNTANTT CAGATTTAAA 60
AACCAACTTA TAAAGCATTG CAACAAGGTT ACCTCTATTT TCCACAAGC GTCTCGGGAT 120
TGNTTTGAC TTGTGTCTGT CCAAGANCTT TTCCCCAAA GATGTGTATA GTTATTGGTT 180
AAAATGACTG TTTTCTCTCT CTATGGAAAT AAAAAGGAAG AAAAAAAGG GNAAA 235

SEQ ID NO:3701

SEQUENCE LENGTH:232

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04358

SEQUENCE DESCRIPTION:

GATCCGTGTT CTCCATTAT TAATGCATTG TAGACCAATT TAACTGCTGT GTTTCAGGAA 60
 AATTCTTCCT AGTTTAATAA GCAAGCTAAA AGTTTATT TTTATATTTA GTGCTTAATC 120
 TTTGCCTCAT GTTATGTAAA ATTAGCCTGC AGATATTTTC TCTCAATTCT GTAGACTCTC 180
 GCAAGATAAA CATTCAAACA GTGAAACAAA CANTAAAATA AATAAACCTA AA 232

SEQ ID NO:3702

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04359

SEQUENCE DESCRIPTION:

GATCCATCTG AACTATGAAG TGAGTACCTG GAGGAACTCC TACATTTAAG GCTTTCAAAG 60
 GTTACAGGCT TTCGTGTGT GTGTGTGTGT GTGTGTGTGT GTGCGTTTTG AGAAAAATGG 120
 AATTCAAACA CTGTNNTTAG AATGTATGTT TACTTATATA GAATTAATGA ATNTATATAA 180
 TAATAATNAC TGTATATAAT TNTAAAAAT AATAAAGTCT CTTTATCCAA A 231

SEQ ID NO:3703

SEQUENCE LENGTH:237

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04360

SEQUENCE DESCRIPTION:

GATCTGGAGT TGAGAGCCAT GGGTTTGGAC ATGACTGGCA CAAACAGCTG TCATATGTTC 60
 ATGGTCAGAT GTCATACATT CTCAGCTGTC TTGTTCCACC AGTATTTACC AGGAAAACAA 120
 AGAATGTGTT AAGGGATGCT CCCCCACCCC ACATCTTAAG TCAGTGTGCC AAGTACTGAG 180
 ATGATTTTAG GGACATTTTA TTTAAATTA AATTTACAAT CTAATGGTAA ATTGAAA 237

SEQ ID NO:3704

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04361

SEQUENCE DESCRIPTION:

GATCATCAAC AAGATTTTCCT TGTGCAAAAT ATTTGACTAT NCTGTATCTT TNATCCTTGA 60
 CTAAATTCGT GATTTTAAAG CAGCATCTTC TGGTTTAAAC TTGTTTGCTG TGAACAATTG 120
 TCGAAAAGAG TCTTCCAATT AATGCNNNTT TTATATCTAG GCTACCTGTT GGTTAGATTG 180
 AAGGCCCCGA GCTGTTACCA TTCACAATAA AAGCTTAAAC ACATTGTCAA A 231

SEQ ID NO:3705

SEQUENCE LENGTH:229

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04362

SEQUENCE DESCRIPTION:

GATCAAAATT GAACCATTTG ACAGTTTGGN TTCTGTTTGC TTCAAAATAT GTAGAATTGT 60
GGTTGATGAT TAATTTCGA GACTAACTTT GAGAGTGTA CANTTTTGAN GAAAACATTG 120
AATGTTTTGC AAATGAAGGG GCTTCACGGA ATGTTACANT GNTACTAATA TAATTGGGCT 180
TTNNTNATGC AAATNGTTAA CACCAGCTAT TAAATATAT TTNGTAAA 229

SEQ ID NO:3706

SEQUENCE LENGTH:228

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04363

SEQUENCE DESCRIPTION:

GATCGCTACC CACCTTCCTT CCATGGTTCC CACCCTCCAC GTTATTTTCC CTTTCTGCAG 60
CGGTTGCACT ACAGGTAGCT ACTGTGTATT ATGGACAAAT GAGAAATGAA TTCTTTTCT 120
GGCTGTCCAT CTATTTTATT TCAATAAGG AAAAGTGTAT TTGGATTTTG TGTAATACA 180
TCTAGTGATG NCATTTTTC AATGTTTNA AAAACCGTGT ACAGTAAA 228

SEQ ID NO:3707

SEQUENCE LENGTH:228

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04364

SEQUENCE DESCRIPTION:

GATCCTCATC CAATTGGTGT TTTTCAGAAG TNTTCCAATA TTATGAATTC TGTGTTGTGG 60
AGAAAAGCAA CCATGCATT ACTGGTCAAT GCCTTCTTGT ATATGTAATT CAATACTTTT 120
ACTTTTAATA TCCTCACCTT ATCTAATCTT TGATTTTGT CATGTAATTT ATTGCTTCAT 180
TAAGGTTACT TTTTGTATA CAAAATAAAA GCTGATATCC AAGGCAAA 228

SEQ ID NO:3708

SEQUENCE LENGTH:226

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04365

SEQUENCE DESCRIPTION:

GATCTATGAA AATNTGTTTT GACCAAACCT AGTATTAGGC AGGTACACAG ATAAGATTTT 60
CCATTCTNAA CATTCTCACT GTAATGCACG ACATTTGANG CACCTGNATG TGCTATCAAT 120
CAGGTGGGAA ATTTAGCATT ATATATTGGA AGCATTGAGA AACATTGGTC TNTCATTCT 180
ATTTNNTTTT NCCCCTCTN TCCTCCTCCT GCCCCACANT ATATNN 226

SEQ ID NO:3709

SEQUENCE LENGTH:224

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

5 CLONE:HUMGS04366

SEQUENCE DESCRIPTION:

10 GATCCTGAGA GCTTTGAGAG GGTGTTGCCA GTTTTAAGCT GAGATGGCCC ATTTGGAGCC 60
 TTACAGAACT AGACCAGAAG ACATTTGTGG ATAAATCTGA ACTCACTTCC TGTGTGTAAC 120
 TTCTAACTTC ACTGGTTCCT CCCATCTGAA TTGGCCACAT GCTTGCTGAA GAGACTTGTT 180
 TTCTTCTTCT AAGACAGTGG TTTTGTTTT TGGGTTTTT TAAA 224

SEQ ID NO:3710

SEQUENCE LENGTH:223

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04368

SEQUENCE DESCRIPTION:

20 GATCTGGGCA GAATCCGCCA AGCGGCTGGG CCCAGGCTGT GGCATGATGN ACGGAGNAAN 60
 GAAGCACCTG GACTTCTAGG GATTCTCCT TAGTCGCTGC ATGCAGAATT CTATGACACT 120
 CTAATNATGA TTGCTAATAG CTTATGTAAA TATTTNNTT AACAATTGG NCCTNCACTC 180
 CTTNAAAAAC ACAAGGATTA TAAATGGGT GCCNGCATT NTN 223

25 SEQ ID NO:3711

SEQUENCE LENGTH:221

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

30 CLONE:HUMGS04369

SEQUENCE DESCRIPTION:

35 GATCGTATTC NTNATAAACT ATTACCAGTA CAGTAGCTAG TAGATATNNT GTGACTGCCT 60
 CATTGTTTAT CTGCTGCTT TGGTCCCTAT GGCTCTAGTA TGAACATTCT CGTGTCTTCT 120
 GTGGAAATGA TTTCTGTGTT ATAGTTNCAN CTTNGGTAGA GGTGGGGATG ATTGTATTTT 180
 GTTTTAGTTG ACATCATTCT CAACTNTTAG AAATACTGTT N 221

SEQ ID NO:3712

SEQUENCE LENGTH:219

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04370

SEQUENCE DESCRIPTION:

45 GATCAGTTTG CGAGTTTGA TGAGNTTGT AAGGTTTNTN TTTTACAAAC TATGAATCAG 60
 CAAATNTTTA AGATTGTACC ACATAGCAAA CACACAGCTG TTGAAAAATA ATGTATATAA 120
 AATGCATATA ATAAATATTA AATNGTGTAC CTGTATGTTA CTGTTGGCTA CATCATTTTG 180
 TGTTGAATAA TAAAGTGCAA TACNNNCCTT CTCCATAAA 219

50 SEQ ID NO:3713

SEQUENCE LENGTH:214

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EP 0 679 716 A1

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04371

5 SEQUENCE DESCRIPTION:

GATCATTCTG TATATACATA TTTTAAATTA TGCAAGCAAA CTAGGAGGAG AATGTNCAAT 60
TTTAAGGGAT ACCTAATTC CNTTCGGTTA GGGGATATTT TCCANCCTCT TGCTTTATAC 120
TCTGATATGG GGTGTNTTTA TGANCITTTT AATGTTATTT ANTCATGCAG ATTTCCAATC 180
10 ANTGTATTGC NCATTTCCTG ACAAAAANGGG NAAN 214

SEQ ID NO:3714

SEQUENCE LENGTH:215

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04372

SEQUENCE DESCRIPTION:

GATCCAAAAN ATAAACTTG AAGCTATTCT GGAACATAACA TGGAAAAATG AAATGGCTAT 60
20 TGTTTAAAAA AATGATAGAA ATACATTGTT GATGGGATAT GAGTTAAGTT TATTTTCTAC 120
AAACCTGTAA TTGATGACGG CATGGATAAT ATCTTCATGT TTCTGACNAG TAATCTGTAT 180
GTGGGGGGAG GGGATAATAA ATATTTCTAA CCAA 215

SEQ ID NO:3715

25 SEQUENCE LENGTH:335

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04373

30 SEQUENCE DESCRIPTION:

GATCAAAAGT GAACACCCTG GCCTATCCAT TGGGGATACT GCAAAGAAAT TGGGTGAAAT 60
GTGGTCTGAG CAGTCAGCCA AAGATAAACA ACCATATGAA CAGAAAGCAG CTAAGCTAAA 120
GGAGAAATAT GAAAAGGATA TTGCTGCATA TCGTGCCAAG GGCAAAANTG AAGCAGGAAA 180
35 GAAGGGCCCT GGCAGGCCAA CAGGCTCAAN GNAGAAGNAC GANCCAGNNG ATGAGGAGGA 240
GGAGGAGGAA GANGNAGATG AAGATGAGGA GGAAGAGGNT GAAGATGAAG AATAATTGGC 300
TATCCTTTAA ATGATGCGTG TGAATGTGT GTACN 335

SEQ ID NO:3716

40 SEQUENCE LENGTH:211

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04374

45 SEQUENCE DESCRIPTION:

GATCAAAATGT GCTGCAGCTT TTGCAGAAAA CAACTCAGAA ACACAAAACC CCCCACAGC 60
TCAATTATTA TTTTTCAT GTTTTCCTAC AAGAGCCAAG TAGCACCATG TACAGAAGAC 120
GCCTTTTTTT TTGGAATATT GAAATCGTTC TGCATGTAAA ATATGGGATA ATGACCTGTT 180
50 TATATAAAAA TTCTGATTAA ATTATCTGAA A 211

SEQ ID NO:3717

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SEQUENCE LENGTH:390

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04375

SEQUENCE DESCRIPTION:

GATCAAGAAT TCTACCATCC CTTGGGTCTT TGTGTATAAA CAATGTAAA TACCAGGTAG 60
 ACTCAGTCTT TAAGATATTA GACAGTTTTT TTAGTCCATG GGNTNNNNAA TATAAACATT 120
 AACTTTCCTA TAAGANTATT TTGGCTTTGT AATCTATAGC CTCAAATTGG TATTTATTAT 180
 GGNTTCACTA GACAAACAGC TGTTCCTTA TTGTNTTTN NCTTTAGTGT TTCTGATTG 240
 CTATCAGTAG CTGTTTTTAA AGCCGNCCAA GGNAATANT TATTTGCAGT TTTTGAAGT 300
 CACTTTTGA GCCCTCATNC AAGCTCTCAT TGTGGNTGGG GAGGGATACC NTTTTGGTT 360
 GTTAAAAGGC CTATNATTGG TTAAGGGCN 390

SEQ ID NO:3718

SEQUENCE LENGTH:235

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04377

SEQUENCE DESCRIPTION:

GATCTTAGAG CTGAGGAATT GGCTCCCAA TCCGAACAGG TGTTATAATC CTTTCTNAAT 60
 AGGTGTGCT GTGGACCCAA TGTNAGGGCT GTNCTGGTGT AAATGGTGAC ATATTGAGCT 120
 GGGGGGATGC TTTGGGGTG GGGGGACTGG TTCCATTCCA TCAAAGGCC CTCTGAGAG 180
 TCTATCCNGG GNCCATTGG TTNAATTAA CAGGCCAGNA AAGANGGTTG NTNNN 235

SEQ ID NO:3719

SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04378

SEQUENCE DESCRIPTION:

GATCTCCTGA GCTCAGGCAA TCCGCCACC TCGGCCTGTC AAAGTGCTAN GATTACAGGT 60
 GTGAGCCACC ATGGGTGGCA TCTTAAATAT AGATTTATAA GGCCCNNTG TTATATATT 120
 NNAAAATTC AAATTTAAAC TANATCCCA AATGTCCNT TTATTAATGA AGTATTTGT 180
 CANATGGATG TTTAAAGCT GTGTATGTN 209

SEQ ID NO:3720

SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04379

SEQUENCE DESCRIPTION:

GATCTAGGAT TACTCTGGAC CTCATTCGGG TGTTATGAGT ATCCCACGAA GGCCAGACGC 60
 TGATTTNATT TNCTCATTT CACAGATTGA CAAGGATAAG TCAGNNGTT GTAAACTCTA 120
 GGTAGCAGAT GAGAAATAAT TCACTTAATA TCAGAAATAT TTNCCAAACA CTTTCCTNA 180
 TTTTCCTTC TGANTAAATA GANANCCNN 209

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SEQ ID NO:3721
 SEQUENCE LENGTH:208
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04380
 SEQUENCE DESCRIPTION:
 GATCCAAGGA ACGTTTGGGG TTTCCTAGGT GGGCCACATC CAATCAGTGG AAGGTCTTAA 60
 GAGCAAAANC TGAGGTTCTT CAGAGAAGAA GGAAATGTTT TAAGACTTCA GCATCAATTC 120
 CTGCCTGAGT TTCTAGCCTG CTGGCCTGCT CTACAAATTT CAAGCTTGCT AGCCCTCACA 180
 NTCACATGAA TAAATTCCTT AAAATAAA 208

SEQ ID NO:3722
 SEQUENCE LENGTH:208
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04381
 SEQUENCE DESCRIPTION:
 GATCCTTTCC CCATGGACAG TGACAGAGCA ACTGGGCCGC AATGGCATAG GCAGAAGAAA 60
 ATNTAATCAC TCTGGGGGTG ANTGGTGGTT AAAACGACTC ATGTAATTAT TTGGATTGTA 120
 ATTCNTTAC ACATATTINT TTGCTTAACC CAGCATGTNA GATATATNAT NTAATCTAAT 180
 AAAAGATACA AACTTATGGG CACACAAA 208

SEQ ID NO:3723
 SEQUENCE LENGTH:207
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04382
 SEQUENCE DESCRIPTION:
 GATCACCTG GAGCTGTGGC TTCCCCGAGC AGCTGAGAGT GAAAGGAGGC AGTTCCTTTA 60
 CTGTGAGCTC TCACGGCAGG GTGCTCAGC CCCACACAGG GGCTGCCTTC ACTCGGCTTC 120
 AGCAGCNGTT GACTTTTAAA TCATAAAAAG CCGCTCTATA TACAGTTTAC TCTGTTGCTA 180
 GAAGGCAGTG GAACATAGGT ATTTAAA 207

SEQ ID NO:3724
 SEQUENCE LENGTH:207
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04383
 SEQUENCE DESCRIPTION:
 GATCCACGTA CAGTTTGAT TTTCCTTCTA GCCTTCATGT GTGGCCCAAG CATCTATTTT 60
 AGACTGTGAT GTTTGGCATT GTTCTCTGAG GTTCTGTCTT CCCTTCGTGT TTCTATGAGC 120
 TTTAATTTGT ATGGTCTTGT TTCTGTAAAT GCCACTAGGG ACTATGTATT CCTGATTCCA 180
 CCATGACAGC TACAGTAAAA CAGTAAA 207

SEQ ID NO:3725

SEQUENCE LENGTH:204

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04384

SEQUENCE DESCRIPTION:

GATCAAGCAG GCACCTCAAG CCTCAATAGG ACCAAGGTGC TGGGGTGTTC CCCTCCCAAC 60
CTAGTGTTCA AGCATGGCTT CCTGGCGGCC AGGNCTTGCC TCCNTGGACT ANCTGGGGGG 120
TTCCGGGTCT CAAGAAGACA AGGGTGCTGG NCCTCCCTAA GCCAAGGAGA GGANTAAAGA 180
CAAAAAGCTN AAAAAAAG GAAA 204

SEQ ID NO:3726

SEQUENCE LENGTH:202

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04385

SEQUENCE DESCRIPTION:

GATCTCGAAC TGTACAAAA TACATGGAGA CTAACAAACA GAACCACATG GAACTTTCAA 60
ACTGAAAAAA AAATTGTCA CAAAACTTT GTTGTCATAG TTAAGTTGAT TGTAGATGGT 120
AATTGAATAT ACTCCTTTGA AAATATTTCA TCAAGTATGT TTCCTGCTCA TTGTGATACA 180
TTAAAAAAA ANTATGGGCA AA 202

SEQ ID NO:3727

SEQUENCE LENGTH:219

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04386

SEQUENCE DESCRIPTION:

GATCCAGAAG GCTTACGAGT ATTTTATTAT CTTGTCCAGG ACCTGAAGTG TTTGGTCTTC 60
AGTCTTATTG GATTACACTT CAAGATTAAA CCAATCTAGA CTGAATATTG GTGTGGACAT 120
GGGGGGTGGG TGGGAGTAGA AAATTTTGTG TATATCAGGG CAGTATTTT TTATGAACTA 180
TAAATGATTG TCTTTAATAA ATATGTGATA AAATCCAAA 219

SEQ ID NO:3728

SEQUENCE LENGTH:200

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04387

SEQUENCE DESCRIPTION:

GATCATATTT AGAGGATATA ACAATTAGAA ATCTAGAAAA TAATTATCAC TTTNATAAAA 60
TNTNAGTCA ACTGTACAAA TAATTACATA AAACATCAAT TAATNATGCT TAAAAATCAC 120
TAATNTTCAT AATATATAAT CACTATTTGT AATCAAAAGT TTAATTTTAT NTNAAAAAAT 180
AAAAATGCT TACTTGAAA 200

SEQ ID NO:3729

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SEQUENCE LENGTH:198

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04388

SEQUENCE DESCRIPTION:

GATCAGCCGA ACTCTAGGGA CTTGGTGTG CTTGGAAGGC ATCCATACCT GCATTTTGCA 60
TTCTTCGTAT GTAATCATAT TGCCAAAGAC AACTATTTT ATCATTATT GTAAATAACA 120
CTTTTCCCA GACCTACCAT AAAGTTTCTG TGATGTATTG TCTCCAGTT GCAATAAAAA 180
TTACTGAGTT GCATCAAA 198

SEQ ID NO:3730

SEQUENCE LENGTH:197

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04389

SEQUENCE DESCRIPTION:

GATCTAAGAT TAATCCTCA ACTGTTTGC ACTCAACAAA GACATACCTC TGAGTTGGCA 60
ACCAGCAGGG TGGATAACGG GCCAGTGGTG ATAAATCAA AGAATAGGTA ATGAAACAAT 120
CATCCAGTTA ACAATCAGCA AGGTTCTTCA GAGCCTAATT AATGTTAAT TCTAAATAAA 180
TTGCAACAAT TAAGAAA 197

SEQ ID NO:3731

SEQUENCE LENGTH:197

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04390

SEQUENCE DESCRIPTION:

GATCCAAAAG TTAAATTAG TGCATACATC ATGTCATTC ACCTCCTGTT CCTAGGAACT 60
CTCCATTCCC AAGCATTGCC AGTGTTCCTC AGATAATCTT AGCTGTTGTC TTGTGCTGTG 120
GAAATGGAAG AAACCATCTT CACAGACTGT AGGAGAATTC AACATATAAT TTCTTAATAA 180
ATACTGTTTC TTTTAAA 197

SEQ ID NO:3732

SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04391

SEQUENCE DESCRIPTION:

GATCTAAGGG AGTCCACTAT CTGTGCAATT GTATTTGGNT TTTTTTGCA CTGTTTCAAT 60
GCTGGTAATT GAAACCATTT TAATATATTT GGTGTATTTC ACTTTATATG TCCTTCCAAA 120
AATNTTGTG TGTACAAACC ATGNNNNNGA ATGTTGGCTT CCAAGTTTTT AAATAAGAAA 180
CTTTTTGTAT TTTAAA 195

SEQ ID NO:3733

SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04392

SEQUENCE DESCRIPTION:

GATCCACGGA GCAGAGGTCA TCTGTCCCA GCTTGGCCCA CTGAGGCCAG CATGGNTGGG 60
 CCCAGGATGC TTGTCTCTCA GCTCCCATCC TGTGTACTTC CACATTGGTT TAACCAGAGG 120
 AAAACCGAAA TCTACAATTG TNATAAACAC ATTTAAATGT GCGTAGAATC AGCCATACAA 180
 ATTGTGAAAC ATAAA 195

SEQ ID NO:3734

SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04393

SEQUENCE DESCRIPTION:

GATCAACTCC CCCAAGGCC GAAAGGTGCT GCATACCACG TACCANAGCC AGGAGCGTGG 60
 CACACACAGC CTGGACATCA AGTGGTGAAG TNAGGCCAGG GNCTTCCAGC TGCTCTTGGG 120
 GCCAGAGCCA AGAGCCTCTN AGTAGAGGGA GGGGCTGCCC TGAGTGGAGT ATTAAAGACA 180
 CTTAAGAAAA CAAA 195

SEQ ID NO:3735

SEQUENCE LENGTH:193

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04394

SEQUENCE DESCRIPTION:

GATCCTGTGC CCTAGGAGCA CCTAGGAAGA CTTGCTCCAT CTCCGCCCGC ATATCTGGGG 60
 CACCAAGAGA GACAGAGTCG TGAGCCAGGC TCGCCTCATT CCTCGTCTTG GGAGAACCGG 120
 ACCAACTTCC CAAAAGGCC TTGCCGTGCA GAATTGGCCT GGTTTAATAA AGAACAGACC 180
 TGNCCCAAGN AAA 193

SEQ ID NO:3736

SEQUENCE LENGTH:190

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04395

SEQUENCE DESCRIPTION:

GATCTGGCCC TCCCCAGAAC AATCTGGATT TCACGGAGAC AGCAACCAGA AGTTAAACCA 60
 TGTGACTAAA AATGCATCTG GCTACTTTT CATGTATGTA TGAGACAGAA ACTAATCCTT 120
 ACTATCCTAT TAGGATACCA CTTTTCATTG CAAAGTTTGT GTCAATAAAG TCATTAATTT 180
 TAAACATAAA 190

SEQ ID NO:3737

SEQUENCE LENGTH:190

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04396

SEQUENCE DESCRIPTION:

5 GATCATAAGT AGTGGAGGAT TTAAAACCAG GCTGGCTGGC TCTTAAGGCC TATGCTCTTA 60
ATTNACCATG TNGAATTAAT TTACCATATT GAATTACACT TATGTNCACC AAGTNAGGCA 120
TTTNGGCAGC CATTGTTTAC GTTTTANTTT TGGAATAATT TAGAAAAGTT ACCAGAGTAA 180
TATGAAAGCN 190

10

SEQ ID NO:3738

SEQUENCE LENGTH:187

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS04397

SEQUENCE DESCRIPTION:

GATCCTCCGC ATCCCGTGCG AGGAAGAAGA TGTGGAGATG AGTGAGGACG CCTACACGGT 60
GCTGACCCGC ATCGGGCTGG AGACGTCAC TCGCTACGCA NNNNNGCTCA TCACAGCTGC 120
20 CAGCTTGGTG TGCCGGAAC GCAAGGGTAC AGAAGTGCAG GTGGATGACA TCAAGCGGGT 180
CTNNNNN 187

SEQ ID NO:3739

SEQUENCE LENGTH:187

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25

CLONE:HUMGS04398

SEQUENCE DESCRIPTION:

30 GATCTGGCCC TAAACTTGAA ATACCTCCTG CTCCTTTGGG GACTGGNCTT TGCNAAGAGC 60
ACCTGGGGAG GAGACTGGTG CTAATAAGC CAGTAAGTAA GTCCACTCTT TGGNTGCAGC 120
TGGTGCAAGG TCTACCCATA CCTTTTATT TNCAGTGTTT AATAAAANTC CAGTGNGCAA 180
AGACAAA 187

35

SEQ ID NO:3740

SEQUENCE LENGTH:186

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40

CLONE:HUMGS04399

SEQUENCE DESCRIPTION:

GATCAAGTTC TGCNCTGAN GAGGCTGCCA AAAGTCAAAA GNGGGGCCTG GGAAGGCAAG 60
CTCATTCTC ACAACGGCCT TTCCAGGCCC NGTTTTTCCC TTCCGGCAGC CTCTTGGCCT 120
45 CTAATTTGTT TATCTNTNGT GTATAAATCC CAAAATATGG AATTTTGGAA TATTTCCACC 180
ATTAAA 186

SEQ ID NO:3741

SEQUENCE LENGTH:185

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50

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EP 0 679 716 A1

CLONE:HUMGS04400

SEQUENCE DESCRIPTION:

5 GATCTGCCTT CTTGCTGAAA CTTGTTCCAC CTCAGTCCCC TCATCTGTCA CACGCATGTG 60
GGGTGGAGTA GGGAGATGCG GGGAGCAGGG TGGGCAGGAA TACTGTTATC TATGTNACGG 120
GGCAGTCGTG AGGCTGAGAT GAGAATGCCG ATTAATAATGC CTGGCGTGCT CACCGTAACA 180
CCAAA 185

10 SEQ ID NO:3742

SEQUENCE LENGTH:182

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04401

15 SEQUENCE DESCRIPTION:

GATCCCATCT NTACAANAAA CTTAAAAATT AGCCAGGCAT GATGGCACAT TCCTGTAGTC 60
CTAGCTACTC AGGAGGCTAA GGTAGGAGGA TTGCCTGAGC CCAGGAGTTC AAGGCTGCAG 120
TGAGCTAAGA ACGTGCCAGT ACACTCCANC NNGAGCCACA AAGTGAGACC CTGTCTCGCA 180
20 AA 182

SEQ ID NO:3743

SEQUENCE LENGTH:180

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04402

SEQUENCE DESCRIPTION:

30 GATCAAAGTG GTAAAGACAA TGTAATAATT AACATTTTAA TACTGATGTT GTACACTGTT 60
TNTACTTAAC ATTTTGGGAA GTAAGTGCCT CTGACTTCAA CTCAAGANAA CACTTTTTTG 120
TTGCTAATGT AATCGGTTTT NGTAATGGCG TCAGAAATAA AAGGATGCTT ATNATTCAA 180

SEQ ID NO:3744

35 SEQUENCE LENGTH:179

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04403

SEQUENCE DESCRIPTION:

40 GATCTNCGGA ATGATGAGCA CACAAGGCGG GAGCTAGCCA AGATGAAGCA GGNGCCGGTG 60
AACCTGAAGA AGGCAGAGAT ATGGCAAACA GGATTNGCGC TTTTGNNAC ATGGAGTGTT 120
CAGCAAAGAC CAAAGATGGA GTGAGAGAGG TTTTNAAT GGCTACNGA NCTGCTCTN 179

45 SEQ ID NO:3745

SEQUENCE LENGTH:178

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04404

50 SEQUENCE DESCRIPTION:

GATCTGAGTG CCTCAAGATG GTTTCAAAA AAATTTTTT AAAGAAAATA ATTGTATACG 60

55

TGTC AACACA GCTGGCTGGA TGATTGGGAC TTAAAAACGA CCCTCTTTCA GGTGGATTCA 120
GAGACCTGTC CTGTATATAA CAGCACTGTA GCAATAAACG TGACATTTTA TAACGAAA 178

5 SEQ ID NO:3746
SEQUENCE LENGTH:332
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS04405

SEQUENCE DESCRIPTION:

GATCCGAGTT CCTCACC GCG GCGCGGGATG TGACCACCCT NTTCAGAGGT TGGACCCAG 60
GCTTCAAGCA CCGAGTGAGG GGTCTGTTGG GCGCCCTGGG AGAGTCTCTG GTGTGAAGTG 120
GCTTAGGTCT GGACTGGTCA GCTGTGGCAC CAGCCGGTCC TGCCCACGCT TCAGGATGGC 180
15 CGGGGGCTGC CCCTGTGGGA GAGTTGCCAA GACTCGGCCA TACCAAGGAT GGAAGCCAGA 240
GGCTGTGGCG AGGGAGAGCC AAGCATATTC CCAGCACCAG GGCCACTGCT GGCACGTCGT 300
AGACATCCA TAAATATTTT TGAAGGAGA AA 332

20 SEQ ID NO:3747
SEQUENCE LENGTH:177
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04406

SEQUENCE DESCRIPTION:

GATCTNNATA CTGTGAATAG CAGAATGTAC AGATGAAGAA TATTAATAATN AGGGGCGTCC 60
ACTCAAAAC ATATACCAG AGTGACAAC TCAGCCCTCA GCCTCTGCAA TCCATATATA 120
25 TNCTGGTCTT GGGAGTCCAT AGAATACTGT TTCCTTCTAA TAAAGGTTTC AAACAAA 177

30 SEQ ID NO:3748
SEQUENCE LENGTH:186
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS04407

SEQUENCE DESCRIPTION:

GATCAATAAT AGTACCTTTN ATTATACATT TATTATTGTN TCTCTCTCTG ATGTACTGTG 60
GATTGTACAT TTAACCTTTG AATGGCTTTG TAATAATCAG TCTTAAGAAA ATNTTGACAA 120
40 GCTCTGGTTG CTTATTTTAA GAAAATAAGG ACATTTAATA ATAATAAAAA AAAAGGGATT 180
AATAAA 186

45 SEQ ID NO:3749
SEQUENCE LENGTH:175
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04408

SEQUENCE DESCRIPTION:

50 GATCCCCAGT GGATGCCTGA AACCGCAGAT AGTACTGAAC CTTATATATA CTGTTTGTTC 60
TCCTATGCAT ACATATCCCT ATGATAAAGT TTATGAATTT GGCACCTAAC AGCAGAACTA 120

55

ATAAGATGAA AGAGTTGTAA CAATATACTC TAATAAAAGT NATTTAAAAT GTAAA 175

SEQ ID NO:3750

SEQUENCE LENGTH:172

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04409

SEQUENCE DESCRIPTION:

GATCAACAAT GAGCAGAAAC ATCATCAGTC CTTCCCAAGG ACCATGGCGT TTAATGTCTT 60
GGGCACCCCT TGGAAATCAC AGAAAGTCAG CNGTACTGGC CGTGTGGAAC TTNCATCCCA 120
AGACCTACTT TNCAACTGAG TAAGAAGGTC ATTGTGCCN CTGCATTNNN NN 172

SEQ ID NO:3751

SEQUENCE LENGTH:107

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04410

SEQUENCE DESCRIPTION:

GATCAAAAAA TGTTATNCT GAATTCTNTA ATTTAAAAA NTCATACCTA TNAGGTGTGC 60
TACAGGAATT CAGATACAAT AAGTTGCATA TAAAACCCGA CCTCANN 107

SEQ ID NO:3752

SEQUENCE LENGTH:169

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04411

SEQUENCE DESCRIPTION:

GATCTGACCA ACAAGGCCAC AGGAAAATTA ATAGCACAAG GAAGACACAC AAAACACCTG 60
GGAAACTGAG AGAACAGCAG AATGACCTAA AGAAACCCAA CAATGAATAT CAAGTATAGA 120
TTTGACTCAA ACAATTGTAA TTTTGAAT AACTAGCAA AACCAGAAA 169

SEQ ID NO:3753

SEQUENCE LENGTH:167

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04412

SEQUENCE DESCRIPTION:

GATCTNCTTG GCCAGCAGGA CGTCCAAGGA CCAGAGCCTG TGTCATGTCC TNGAACAGGT 60
NTGCGGCGTC CTCAAGCAGG GGAGCTGAGC CTTCCANAGG CAGGGTGGGC TCCAGTTGTC 120
TTGAGGGTCC GGATGGGCTC AGGTAATAAA GAAACGGAAG CAGCAAA 167

SEQ ID NO:3754

SEQUENCE LENGTH:168

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS04414

SEQUENCE DESCRIPTION:

5 GATCTGGGCT GTGGGGCCCT TGGGCCACGC TCTTGAGGAA GCCCAGGCTC GGAGGACCCT 60
GGAAAACAGA CGGGTCTGAG ACTGAAATTG TTTTACCAAC TCCCANGGTG GACTTCAATG 120
TGTGTATTG TGTAAATGAG TAAACATTT TATTCTTTT TAGGTAAA 168

SEQ ID NO:3755

10 SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04415

15 SEQUENCE DESCRIPTION:

GATCTATGAT TTATNATGTC TTAATAGACC CTAAATTGTT CTTTAATTAC AAGAGTGGCA 60
GTCTCTGAAG TCATTTGTGA GCTTGTATGA CTTTGTATT TAGCAATGTT GCATGCTCAC 120
ATAATTGAAA ATTAAAAGTA ACACATTTT CTGAAATGTA AA 162

20 SEQ ID NO:3756

SEQUENCE LENGTH:161

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS04416

SEQUENCE DESCRIPTION:

GATCAAAACA TAATTGTTTT AATTCTACAG CTGTAGGAGC TTTGTATTGC TGAACTTTCA 60
TCTGAAAAG TTTCACAGTG ACATTTTAA AAGAGAATT TTTTATCTGC CGAATTCTAC 120
CAGTGTAAAC TTTTNTAA ATAAACAATA GTTTNTCAA A 161

30

SEQ ID NO:3757

SEQUENCE LENGTH:160

SEQUENCE TYPE:nucleic acid

35 TOPOLOGY:linear

CLONE:HUMGS04417

SEQUENCE DESCRIPTION:

GATCTCAAGA AGCCCCACAT CTTCTAAGG GGCCCATGG CCTNNTTGG GNGCAGGGTA 60
GGTCCTGGGG CACTGTGGG CGCCTGCCTG CTGATGTGG CTCTAGGCCA GCTTGTGTG 120
40 ACGTACGTGG TGTGAAATAA AGCCCAAGCA CTNGTGAAA 160

SEQ ID NO:3758

SEQUENCE LENGTH:160

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04418

SEQUENCE DESCRIPTION:

GATCCTGGGT GACTTTGGGT GCACAGGGTG ACCGAGCATT TCTGCCCTG TGAATGTGGC 60
ACTAACACTG TGCATGTCT CCACCAAANA AGGTTTCAC TGAGTTTCT CTCATGTTAC 120
50 TGGGTTTGTA AATGAATAA CACATTTTAA CTACTCTAAA 160

55

SEQ ID NO:3759

SEQUENCE LENGTH:158

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04419

SEQUENCE DESCRIPTION:

GATCAATAAG AAGANCCTAG TCTAGAGACA ATGATGCTAG TTTGCATATG TTTTCCTATG 60
 CAATAGTTGT TTTCCAGTN ATNCAAAGCA GCTTTCTATA TGTAGAGATG CAAATNATTA 120
 AGTTGTTNCC AATACAATAA ATAAAAGCAT CNGTTNTN 158

SEQ ID NO:3760

SEQUENCE LENGTH:158

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04420

SEQUENCE DESCRIPTION:

GATCAGATTT GTAATTTNCC TGTATTAAAT GCCTAGAACT CTACAGTCAA CAGATGGCGC 60
 TCTAGTTCCA ATTGTNACAG AAGTNCCTCG CCCATCCGCA AGCAAAGCGT TGTTTTCATC 120
 AGTGAAAAGA GAATAANCAC TGTGCTTTAA CTTTTAAA 158

SEQ ID NO:3761

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04421

SEQUENCE DESCRIPTION:

GATCTGTATG GACTATATAA ATACTTATTT NATAATTCTG TAACCGTATG GCAGTGTAT 60
 GCCAAAAATG TATAAGAGC AATAGTTTT GTTGCTTACT GCTGTATTT AAAATATTGT 120
 TTCTAAAATA ATAGNGTTAG AGTTCCTTT GAGTAATTAT TTTTAAGGAC TATTGCCAAA 180
 TATACATCCT GTAAACCTA ATAAAAGCCA CTCCATCTTT NGGTAACCAT TTTAGCATTT 240
 GTGCTTGGNG TACATNNTGG GTGGTTTTTG CNCGNTTAAN NANNTTANN 290

SEQ ID NO:3762

SEQUENCE LENGTH:158

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04422

SEQUENCE DESCRIPTION:

GATCCACCC TCTNCCCAC CTGGGCGNACT GACGCTCTGG CCTCTNTGGN AATNACACTG 60
 GGCTGACCTG GCATTGGGAG AGGGAGGGAG GAAGGAAGGG AGGGAGGGGC TGAAGATAC 120
 TGAAGGATTC CTTTTNAAA GGTTTTTTTT ATTGTAAA 158

SEQ ID NO:3763

SEQUENCE LENGTH:157

EP 0 679 716 A1

SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04423

5 SEQUENCE DESCRIPTION:
 GATCCAAGTC CCCTGCCTGG TCCCCACAA GGNCTCCCAT CCAGGCCCC TCTGCCCTGC 60
 CCCTTGTNAT GGACCATGGT CGTGAGGAAG GGCTCATGCC CTTATTTAT GGGAAACCATT 120
 TCATTCTAAC AGAATAAACC GAGAAGGAAA CCAGAAA 157

10 SEQ ID NO:3764
 SEQUENCE LENGTH:157
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

15 CLONE:HUMGS04424
 SEQUENCE DESCRIPTION:
 GATCATTTN CATCTGTNCA TAGCGTTTCT NCAGAAGGAA CAGTAGTCTC AAATCTTTCC 60
 TCATAATGAT AACAAAATGC TCTTGCATGA TTTNTAACA ATATATTTAA NCAGGAAGTT 120
 20 GTCCTGATA TACTTTATTA AAAGGATTTT AATCAAA 157

SEQ ID NO:3765
 SEQUENCE LENGTH:161
 SEQUENCE TYPE:nucleic acid

25 TOPOLOGY:linear
 CLONE:HUMGS04425
 SEQUENCE DESCRIPTION:
 GATCGTGTGT TGCCATTNG TCTGGCTGTG GCCCCTCCTT CTCCCCTCCA GACCCCTACC 60
 30 CTTTCCCAA CCCTTCGGTA TTGTNCAAAG AACCCCTC CCAGGAAG AACAAATATN 120
 ATTCTCTCT CCCAAATAAA CTCCTTAACC ACCTAGTCAA A 161

SEQ ID NO:3766
 SEQUENCE LENGTH:156
 SEQUENCE TYPE:nucleic acid

35 TOPOLOGY:linear
 CLONE:HUMGS04426
 SEQUENCE DESCRIPTION:
 GATCTTGAGG TTGTTTGATG CTTTAAATTT TTNAATTATA TTATTNNTA GGTGTTTATT 60
 40 GGTACATTGC AGTTTTTTT TTNAATTTA AAAATTTCTG TAAACTTTG TNTCAAGTA 120
 ATCTGACAGC ATTAAATATT GCATTAAAA ATTAAA 156

45 SEQ ID NO:3767
 SEQUENCE LENGTH:155
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

50 CLONE:HUMGS04427
 SEQUENCE DESCRIPTION:
 GATCCGCAAG AACAAGTACC GCCCGACCTG CGCNGGCAGC CATCCGCAGG CCAGCGCATC 60

55

CTGCGACAGA AGCCTGTAAT GGTAAGAGAA GCGACCCGCC CACCAAGAGT CCTGAGCCCC 120
TGTCCAGAGA ATAAAGCAGC TGGCTTTCTA CCAA 155

5 SEQ ID NO:3768
SEQUENCE LENGTH:155
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

10 CLONE:HUMGS04428
SEQUENCE DESCRIPTION:
GATCCCAAAA CATCATNAGG CATTTTNAAG TTGGTCACGT CGCAAGTCCG ATATCACAAC 60
TTAATTGTAA AAGGAGGGAA TCTGGTTTTG TNACTTGGCA GTGGTTTTTT CTCACCCTTC 120
CTTTTAAACA ATAAATCCC ATTTGGGTCT TGAAA 155

15 SEQ ID NO:3769
SEQUENCE LENGTH:155
SEQUENCE TYPE:nucleic acid
20 TOPOLOGY:linear
CLONE:HUMGS04429
SEQUENCE DESCRIPTION:
GATCTATTG ATAATTTNT GGGTTTTTG AAGAATTAAT GAGCATGTAC ATAGAAATAG 60
25 TGACTGCTTG ANTACTGTAT TTNCTTGCAC TCTTTCAGTA CATCAAGATT CCTGTATATN 120
TNAGNGTATA ATAAACACA GATGTGAGTT GTAAA 155

30 SEQ ID NO:3770
SEQUENCE LENGTH:153
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04430
SEQUENCE DESCRIPTION:
35 GATCGGCACA AGATGCTCAG CTAGATGGGC TGGTGTGGTT GGGTCAAGNN CCCAACACCA 60
TGGCTGCCAG CTCCAGGCT GGACAAAGCA GGGGGCTACT TCTCCCTTC CTCGGTTCCA 120
GTCTTCCCTT TAAAGCCTG TGGCATTTTT AAA 153

40 SEQ ID NO:3771
SEQUENCE LENGTH:153
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04431
45 SEQUENCE DESCRIPTION:
GATCTGAAGT GTGAGTAGAA TGTATTCAGC TGTITAACAT GTAGTTTGA TATTCAAAAG 60
TATGCATGTA GAGTTTAAAG AATATGTAA AANTNATTAA TTTAATATT TTGTTTGGAA 120
AAGCATGTTA TAATATAATG TTTTCACTAT AAA 153

50 SEQ ID NO:3772
SEQUENCE LENGTH:152

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04432

5 SEQUENCE DESCRIPTION:

GATCTGGNAC TCCTTGTAAGT AAGCTGTTTT CTGCTCAGCC ACTGGGCTCT TTCACTTTTT 60
TAGTTCTTAA AAATTTATTT TTAAGTTCTA AAATAAAATA AAAATAAGTT CTTAAATTT 120
ATTTTTTCC NGATAAAATT GTATTTGGTA AA 152

10

SEQ ID NO:3773

SEQUENCE LENGTH:151

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS04433

SEQUENCE DESCRIPTION:

20 GATCGCAAAT CACAGCTCAG ACAGCCAGCT CTTAAGTGAG ACCTGAGTGC CAGAGAGGGG 60
TGGATACAAG GCCAACAGTT ACTAAATGAA TGAAAATTGT GATTCCGATG AAGCCTGCCA 120
GAGAAATAAA GCATTTTTTA AAAGATGGAA A 151

SEQ ID NO:3774

SEQUENCE LENGTH:151

SEQUENCE TYPE:nucleic acid

25

TOPOLOGY:linear

CLONE:HUMGS04434

SEQUENCE DESCRIPTION:

30 GATCTAGCCA TAAACTAGT AATCTTGAAT TCCTCTTGAG CTGGATGGTG ATTAGCCATT 60
GTGAAAACAG ATTATATGGA AATTGTGCAT ATTGCTAAAT TTTAAAACAT GGATTTATCA 120
ACTGATAATA AAATATATCT TACAAGATAA A 151

SEQ ID NO:3775

35

SEQUENCE LENGTH:151

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04435

SEQUENCE DESCRIPTION:

40 GATCTTTAGC TGCCTTTGTA TCAACTTCTN TGGAGCTTAT GTGATTTTCC AGAAAATATC 60
CAAGGCATAG TTTTGTCCCT AAGTCCCATG AATATGTAAT ATNTNGTGTC TCTCTATTAA 120
AATAGCACTT TTNGTGCATN CCATTAACAA A 151

SEQ ID NO:3776

45

SEQUENCE LENGTH:150

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04436

50

SEQUENCE DESCRIPTION:

GATCCATCAA AAGGTTCTTT TTNATAATC CCTTTTGAAA ATAATAATCA AAGGAAGAGA 60

55

TGTGGTGT TT GGCATGTGG AAAACTCAAT GTATAATTAA GACGTCTNTC AAAAATCCGA 120
 CAAATAAAAT NAAGCTGGAA CGAAGGCAAA 150

5 SEQ ID NO:3777
 SEQUENCE LENGTH:146
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 10 CLONE:HUMGS04437
 SEQUENCE DESCRIPTION:
 GATCCNAAAG CACACCAGGA AGATGCTAAA GATGCTTATA CTTTCTCTCA AGAATTGAAA 60
 GAAAAACCCA AAGAAGAGCC AGGAATACCA GCAATTCTGA ATGAGAGTCA TCCAGAAANN 120
 NNNGTCTATA GTTATGTTTT GTTCNN 146

15 SEQ ID NO:3778
 SEQUENCE LENGTH:168
 SEQUENCE TYPE:nucleic acid
 20 TOPOLOGY:linear
 CLONE:HUMGS04439
 SEQUENCE DESCRIPTION:
 GATCAGAGAA GTTATGCTC ACTGTCTGAT GCAACTNTCT GGTCTATTTG TNAGTAAATA 60
 ACAGGGAAAT CATTTCAC TTTTGTTAAA AATAAGGTAT TTACAAGCAT ACCTTGTAAGT 120
 25 TATTGTGGGT TCAGTTTCAG ACCACTGCAA TAAAGTGAAT ATCTCAAA 168

SEQ ID NO:3779
 SEQUENCE LENGTH:149
 30 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04440
 SEQUENCE DESCRIPTION:
 GATCTGACCC ACCAGTTTGT ACATCAGGTC CTGCATGTCC CACACCATT TTTTCATGACC 60
 TTGTAATATA CTGGTCTCTG TGCTATAGTG GAATCTTTGG TTTTGCATCA TAGTAAATA 120
 AAATAAACCC ATCATTG GAAACATAAA 149

40 SEQ ID NO:3780
 SEQUENCE LENGTH:144
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04441
 45 SEQUENCE DESCRIPTION:
 GATCGGGACC TGACCTGGGG CTGGCCTCAG GCCCACGTGC ACGTAACTGC CCTCTGTGGA 60
 AGCCAGCTTA AACCCTAGCC CTNTNAGAGC TTCCTGTGCC CAGCAGGAAG GAAGTCAAAT 120
 AAACCACACT GACTACCTGT GAAA 144

50 SEQ ID NO:3781
 SEQUENCE LENGTH:144

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04442

SEQUENCE DESCRIPTION:

GATCTAGGGG GAAAGAGGAG CATTATCAC AAGTTTCCTA GAGAGAGGAG ACAAATCGGT 60
GTGCCATTGA CAACATGAGC CAGGGTAAAG GCACCCTTNN NNNTTACTGA TTTCAAAGAT 120
TAATAAAGTA ATTCTATTTT TAAA 144

SEQ ID NO:3782

SEQUENCE LENGTH:139

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04443

SEQUENCE DESCRIPTION:

GATCTATGAC TCATTTGACA GAGAAGCCAA GGAAAAAAG CTGCTTGGC CCATTAAGTC 60
AAATCCACCA AATACITTTG TCTAAGTTCT CATTCTTTCA ATTGTTATGC ACCAGAGATT 120
AAAAAGCTTT AACTATAAA 139

SEQ ID NO:3783

SEQUENCE LENGTH:137

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04445

SEQUENCE DESCRIPTION:

GATCTGTGTC TTGAAGCAGC TGCCCTCATT CCGACTTCAG AAAATCGAAG CAGCTGGCTC 60
CTCCCCTTGT TCTCTCTCCC ACCCTCCCCC AAATCTGTTT TCATGTAAAA GACAAATAAA 120
TGATGACTTC CCCCCAA 137

SEQ ID NO:3784

SEQUENCE LENGTH:137

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04446

SEQUENCE DESCRIPTION:

GATCAAAATA AAAATGTACA TGACGGGGAA GGGAAAAACC TGTGGAGTT GCTTCCAGCC 60
AGCCACGCTC CGGGCCAGCA TGTGGAATC CAGCGTGGAG CAGATGCAGT AAAAATATGG 120
TTGGTTTCTG TGTGAAA 137

SEQ ID NO:3785

SEQUENCE LENGTH:137

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04447

SEQUENCE DESCRIPTION:

GATCTCTCTC TCNTTTTACC CCCCTTAGGC TGAGGGTAAA AAGCTGGGAT TGGTAGGCTG 60

GGTCCAGAAC ACTGACCGGG GCACAGTGCA AGGACAATTG CAAGGTCCCN TCTCCAAGGT 120
GCGTCATATG CNGNNNN 137

5 SEQ ID NO:3786
SEQUENCE LENGTH:133
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS04448
SEQUENCE DESCRIPTION:
GATCGGCCAA GTATGCTNTT NTTAGAGCA ATGTTTGGCC CTAGAGANTT GTAAAATTTA 60
TGTNATGACT CAGTACATAT GTGTTCTGAC ATATATGATN GGAATAAAAT GTTATGAAA 120
TATTNACTCA TAN 133

15 SEQ ID NO:3787
SEQUENCE LENGTH:132
SEQUENCE TYPE:nucleic acid
20 TOPOLOGY:linear
CLONE:HUMGS04449
SEQUENCE DESCRIPTION:
GATCTGTGTG ACCTCACCTG CATTGATTG AAAAAAGTAT GCGCGTAATT GTACCCACCC 60
AGTTCAAACC CGTGTGTAAG GGTCAACTGT AAAAAAAGT TTGTGAAATA AACGTACTGG 120
25 AGAATCTTTA AA 132

SEQ ID NO:3788
SEQUENCE LENGTH:130
30 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04450
SEQUENCE DESCRIPTION:
35 GATCAGTATT TAANATTATA CCAGTTTNA TTAAACCCTT TCCCTCCCG ATAAAGAATG 60
TTCTATTCT GCCTCCCTT AAAGGGGAGA CCTCAGAAGT AAAGNAATTT NATGTTGTGT 120
TTTTNTTAAA 130

40 SEQ ID NO:3789
SEQUENCE LENGTH:129
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04452
45 SEQUENCE DESCRIPTION:
GATCCCCCTT CACCTTTTGC CATGGTCATA AGCTTCCTNA GGCCTCCCTG GAAGCTGAGC 60
AGATGCCAGC ACCATGCTTC CTGTACATCC TGCAGAACCA TAAGCCAATT AAACCTTTTT 120
AATAATAAA 129

50 SEQ ID NO:3790
SEQUENCE LENGTH:129

55

SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04453
 5 SEQUENCE DESCRIPTION:
 GATCCNCCAT GGTGGACACG TCTGTNCTGT ATGTAAAAGG CATTACAAAT GTTTTTTAGC 60
 AGATGAGACT TGAAGCCTTT CCACAGTCCT TGTNCTCTGA GATGGCTGTN GAGCTCTGCT 120
 CANCTGTTN 129

10 SEQ ID NO:3791
 SEQUENCE LENGTH:126
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 15 CLONE:HUMGS04454
 SEQUENCE DESCRIPTION:
 GATCCCTACC CCTCANCAAC TAGCTCCCCT GTCGGCCAGC TAAGAGAGCT GGGACANTGG 60
 AGGCTGGCAG AAGCTGAGAC GTGACTGTCT AGGAGTAACA CTCATTAAAG CTTTCNTTTT 120
 20 GGCAAA 126

SEQ ID NO:3792
 SEQUENCE LENGTH:126
 SEQUENCE TYPE:nucleic acid
 25 TOPOLOGY:linear
 CLONE:HUMGS04455
 SEQUENCE DESCRIPTION:
 GATCTGAAAA AGCAACCCAT TTCCTAAATT CATATTTTNC CTAAACTTT ACTATGTTTT 60
 30 NATTTTAAGA GGTTTCCTGT TATATACACT TTTNACACAT GCAATAAAC TTTATACCAA 120
 GTGAAA 126

SEQ ID NO:3793
 35 SEQUENCE LENGTH:126
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04456
 SEQUENCE DESCRIPTION:
 40 GATCTGTTTA GAAAATACCT TTGAAAACGA GGGTAACTTT AAAAAATGGA AACTTTCAAA 60
 TCCATTTATA TTTTNNTTAT AANCAAACT TAATTAAAAG TTTAACAAAC TGGCTGAAAA 120
 CTCAAA 126

45 SEQ ID NO:3794
 SEQUENCE LENGTH:126
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04457
 50 SEQUENCE DESCRIPTION:
 GATCACTGAG CTGCCCNTCA AGGGGACCTG GANNCCGGGT CCTGGGGTCA TGCTGCCTCC 60

55

NAGGCTCCAA GGTGAGGGTC ATCTTCACGA GCAAAGAGAA CCAATAAAGT GACAACGNAC 120
GTCAAA 126

5 SEQ ID NO:3795
SEQUENCE LENGTH:123
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS04460
SEQUENCE DESCRIPTION:
GATCCAGGGC TTTCGAGGCC TCTCCTCATT GAGTTCAGAG TCACATATCA GAGGNTTAA 60
TCCAAAAGAA ATATGCACAC CCCTCTCCTC CCTCCCAGTA AAAATAAATC GCTCCTCTTG 120
AAA 123

15 SEQ ID NO:3796
SEQUENCE LENGTH:125
SEQUENCE TYPE:nucleic acid
20 TOPOLOGY:linear
CLONE:HUMGS04462
SEQUENCE DESCRIPTION:
GATCTCTGTG CTGTAAACTA AAACAAATTG TGCATTCCTT CCGGGGCCAT CGTCTTTGTT 60
TTCTTTTTTG TCTTGAATGA ATTTTAAAG GAAATATATA ATAAAAATGT TAACCAGAAG 120
25 GTAAA 125

SEQ ID NO:3797
SEQUENCE LENGTH:119
30 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04463
SEQUENCE DESCRIPTION:
35 GATCTGGGGG CCCCCCAGC TGGCGGGAAC CCCAAATGGA CACAACTGT ACATTGCCA 60
ATGGGTTTTT TTCAGACCAT GGTTTTTACT TGCAAATAAA CCTGAGTTCT TTTCTGAAA 119

SEQ ID NO:3798
SEQUENCE LENGTH:133
40 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04464
SEQUENCE DESCRIPTION:
45 GATCTAAAAN NATACTNTGT TCCCTCATAT GCATGCCCTT CCTTTCTATA TCCTTGACAC 60
CTTACTTTCC CATTGTAACA ATAAAAAAG TATCAATAAA ATAATTATTG GCAAATAAAT 120
TGGTGAGTTG AAA 133

50 SEQ ID NO:3799
SEQUENCE LENGTH:119
SEQUENCE TYPE:nucleic acid

55

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TOPOLOGY:linear

CLONE:HUMGS04465

SEQUENCE DESCRIPTION:

5 GATCCTGCAG TGATGGAATG TTCTGTCTTG ATTGTAGCAA CACCAATATN CTGATTGTNA 60
TATTATACTA TAGTTTTGCA TAACAGTTAC CATTAAAGGA AATTGGGTAA AAGGCTAAA 119

SEQ ID NO:3800

10 SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04466

SEQUENCE DESCRIPTION:

15 GATCTCTTAG CAAATAGGAA TCTAGGTGTA GAATTATAC ACATATATAT TTTTAAAAGT 60
ATAAAAATGA GAAAGTATGT ACAAAAAATC ATCCTAAATC TTAGAAAAGGA GACATAAA 118

SEQ ID NO:3801

20 SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04467

SEQUENCE DESCRIPTION:

25 GATCTGGGAG CCAGCAGCTG GATGCTGTGG CTGGCCAGAN ACACCTCCAG GCTGTGGCCT 60
GGGGGGTGGG GGGAGCCCCA GGCTGAAAAG GGTCCAATTA AAACAAATGG AGCCAAA 117

SEQ ID NO:3802

30 SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04468

SEQUENCE DESCRIPTION:

35 GATCACATTC CAGCCCTCGC TGCTGGGGTG CACACCCCTT CCTTAGNTGA TGTGCTTGGG 60
AAACTCCCTC CCCCTCCTTC CCAAGAGAGA AATAAANCA CCTTCGCCTA GGNCAAA 117

SEQ ID NO:3803

40 SEQUENCE LENGTH:116

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04469

SEQUENCE DESCRIPTION:

45 GATCCTGACC TCCTCCAAGG AAGAAATCCA GAAAGCCTTA AGACTAAGAC AACTTGACTC 60
TGCTGATTCT TTTTTCCTTT TTTTNTTNN AAAANAAAAA TACTATNANC TGGAAA 116

SEQ ID NO:3804

50 SEQUENCE LENGTH:115

SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS04470

SEQUENCE DESCRIPTION:

5 GATCAGAACT CCAAAACCAC TCCCACCCCT GAAGGTCGGG AGGGTCTGAG CAGCCCTGGT 60
GGCTNCTTGT GCTCAGGTCC TCAGTCCAT GGGAAATAAA AATGGCACCC TGAAA 115

SEQ ID NO:3805

10 SEQUENCE LENGTH:114

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04471

SEQUENCE DESCRIPTION:

15 GATCAACATA TTTAGCTTAT ACAGAAATAA AATTAAGTCA ATCCACTCAC AAAGAATTTC 60
TATTTTGTA AATGTAGCT TGTATTTCAG TATAATAAAA TCTGATGTAA GAAA 114

SEQ ID NO:3806

20 SEQUENCE LENGTH:114

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04472

SEQUENCE DESCRIPTION:

25 GATCANAGCT NTCCCAAAGA GGGAAAGCGG TGAGGTTTNA GGAGGGGCAG AAGCAGGGCC 60
GGCAAAGNTT GTACATNCAT AAGGTGGTAT GGGGGGTTGG GGTACAGGCC TGAN 114

SEQ ID NO:3807

30 SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04473

SEQUENCE DESCRIPTION:

35 GATCGAAAGA CTCAGGGAGA GCGGTCTTNA CCACCTGGAA GTAAGTCCCA CCTGGACCTT 60
ATNAAAAC TA CTA CTCCAC CTGGGCCCT GCTGAAGCCN NNTTTTAAAA TN 112

SEQ ID NO:3808

40 SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04474

SEQUENCE DESCRIPTION:

45 GATCTGTTTC GTGCATTGGA AGACCCACCA CAAGCTTGGC ANACTAANTN TTGTATCCTG 60
GGGCTCCNT CATCTCCAGG GAGACCAAAC CCCGGCCCTA CCAGNGCCCG N 111

SEQ ID NO:3809

50 SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear
 CLONE:HUMGS04476
 SEQUENCE DESCRIPTION:
 5 GATCAAGACT AACAAATAAC TTTGTGATGA AAATNCTTCA AAAATATAGC TACTCTTTTC 60
 AAGTATACCA TTAAATATAT TTCATCAGGC AGAGCCCTGA CCAGGAAA 108

SEQ ID NO:3810
 10 SEQUENCE LENGTH:108
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04478
 SEQUENCE DESCRIPTION:
 15 GATCAAGAAN ANTNAAGACA ACGAGAAAGT TTAAGAGTTC GAAAGCAGCA AGATNCCTTT 60
 CCCCCTGGT CAATCCTGA CACAAGAGAA GGCAGAGACC CTGAAGCN 108

SEQ ID NO:3811
 20 SEQUENCE LENGTH:182
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04482
 SEQUENCE DESCRIPTION:
 25 GATCTTCAAG CAAGGGAAAT GATTCTTAAA AGGATTATCT GAAATTGAAA AACTAGTAAG 60
 CAAATAAATG ATAAACATAA GTAAATTTAA NCTGTTGTTT GTATAAAACA ATTATAATGA 120
 NGTGTTTATA AGANATTGTA AACAAATGTA AANCTAAATN ANCATTGTTA TGCAACATTA 180
 AA 182

30
 SEQ ID NO:3812
 SEQUENCE LENGTH:105
 SEQUENCE TYPE:nucleic acid
 35 TOPOLOGY:linear
 CLONE:HUMGS04483
 SEQUENCE DESCRIPTION:
 GATCTCCCA AACTAAAAG TACAGTACTT GGAATTGTGT TCTTTATGGT TGTAAGTGTG 60
 GTAAAGCACT AATATGCAGA AAATAAGGA ATTACACAGT GCAA 105

40
 SEQ ID NO:3813
 SEQUENCE LENGTH:105
 SEQUENCE TYPE:nucleic acid
 45 TOPOLOGY:linear
 CLONE:HUMGS04484
 SEQUENCE DESCRIPTION:
 GATCCNAAGC AGTGAACATG CTGTTAATAC TTGTAAGACT CCTAGCAAAC TGCATTTAAT 60
 TTTTAAATT AGTTTATG TACATAAAGG CATGINTTTN CCAA 105

50
 SEQ ID NO:3814

55

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04485

SEQUENCE DESCRIPTION:

GATCCATGGG ATTNATAATT GAAATAGAGA TTGGAGACCC TCCTATTCAN TTCATAAGCA 60
ATNGCACCAC AGGTCANATG CAGTTATCTN AACTCCAGGA AATTN 105

SEQ ID NO:3815

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04486

SEQUENCE DESCRIPTION:

GATCTTGCTA AATTATTAGT TCTAGTAGCT TTTTGTAGA TTCATTAGGA TTTTNTACAT 60
ACACAATCAT GCTATTGCA AATAAAATAA TGCTTTTATC CAAA 104

SEQ ID NO:3816

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04487

SEQUENCE DESCRIPTION:

GATCGAGTCC AAGGNAGACT ATGTCCTCTN CTACCAACGN CAGGNCGTGG CGCGACGCCT 60
GCTGTCCCCG GCCGGGTCAT CTGGCGCCCC AGCCTCCCCT GNCN 104

SEQ ID NO:3817

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04488

SEQUENCE DESCRIPTION:

GATCAGCACT GTGGTGAGCT CCAAGGAAGT GAATAAGTTT CANATGGCTT ATTCAAACCT 60
CCTTAGAGCT AACATGGNTG GGCTGAAGAA GAGAGACAAN NNN 103

SEQ ID NO:3818

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04489

SEQUENCE DESCRIPTION:

GATCCCAAAC CTNAGCTCAA TCAGTATTGC CAGANAGGGG TAAGACTGGT TGGAAGCTGA 60
CTGCAGACTT NNTTCCCCT TAGTATGTNC TGTGTTGTAA ATN 103

SEQ ID NO:3819

SEQUENCE LENGTH:102
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
5 CLONE:HUMGS04491
SEQUENCE DESCRIPTION:
GATCACTAAG CAAAGCTGCT AGTGGGATTC TATATTCGT GTCATCTTTT TTATNATAAT 60
NTATTGCAAA TATTTTCTG AATAAATATA TGTGTGTGA AA 102

10
SEQ ID NO:3820
SEQUENCE LENGTH:102
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
15 CLONE:HUMGS04492
SEQUENCE DESCRIPTION:
GATCCTGCCA CCAGGGTTNT TTTGAAATAG TACCACATGT AAAAGGGAAT TTGGNTTNA 60
NTTCATCTAA TCACTGANTT GTCAGGCTTT GATTGATAAT TN 102

20
SEQ ID NO:3821
SEQUENCE LENGTH:102
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04493
SEQUENCE DESCRIPTION:
GATCTTGTTT AATCGGAAAC CCCC GTTACC TCCTCTTTT CTTCTCTTT CTTTTTTTTT 60
TTTAACTNAA ANATTTTNAAT GATGATTAAG ANGGAAGTNG TN 102

30
SEQ ID NO:3822
SEQUENCE LENGTH:102
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS04494
SEQUENCE DESCRIPTION:
GATCCCAAAC ACTCNATCCT GTAAGNCGGG TACAGTCCTA TTGTNTGTN NCACACTGAT 60
GATGTGAGCC TGTGAGATGA GCCAATCACC AGTTGTTATG TN 102

40
SEQ ID NO:3823
SEQUENCE LENGTH:101
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS04495
SEQUENCE DESCRIPTION:
GATCTCATGT ACTGAAAAA AATCTTAAT TTTATTGGAG TTTATACCAC TGTGAAACTG 60
CAATATGACT GTAAGAGAGT AAAAAGATTG TNACATCTAA A 101

50
SEQ ID NO:3824

55

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SEQUENCE LENGTH:101
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 5 CLONE:HUMGS04496
 SEQUENCE DESCRIPTION:
 GATCTGGGAG TCTGAAATGG TAGCNTTTTG TCCCTGTCTT CACACTATCA TAGGGAGAAT 60
 CAAAAGANCT AACAAATATA ANCATGCTTT GTGAATNNCC N 101

10 SEQ ID NO:3825
 SEQUENCE LENGTH:100
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 15 CLONE:HUMGS04497
 SEQUENCE DESCRIPTION:
 GATCTNTTTT NTNTCTATTT TTTGAGGTAC ATGCTACATA CATTTTNTNT GTAAACAAC 60
 ATTTAGCATA TTGAATAAAA TAACATTTTA AAAATAGAAA 100

20 SEQ ID NO:3826
 SEQUENCE LENGTH:97
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS04498
 SEQUENCE DESCRIPTION:
 GATCCCACGG CNAACACTCA CCACNCGCTA CCATACGCCN TCCCAGAGCT AGGGGCTGCC 60
 TTAAGGAAA TTGTAGCCTA AGTAGGTCAT GGCAAGN 97

30 SEQ ID NO:3827
 SEQUENCE LENGTH:96
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 35 CLONE:HUMGS04499
 SEQUENCE DESCRIPTION:
 GATCAGCCAC ATCAACTCAG TTGTCCACCA CAGGGGAATT TTNAATGTCT TTTGTTTTTG 60
 TTTGTTTTTG AAAAATAATA AACAGGCAAC TGTAAG 96

40 SEQ ID NO:3828
 SEQUENCE LENGTH:95
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 45 CLONE:HUMGS04500
 SEQUENCE DESCRIPTION:
 GATCTATTTG GCCTCTCAA TGAAGTGA TCCCTGTAA AAAAGATTGA TGTTATTGTC 60
 TCTTGTAGAG GAACTAATA AAGCTGCAGG NGAAA 95

50 SEQ ID NO:3829

55

EP 0 679 716 A1

SEQUENCE LENGTH:94

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04501

SEQUENCE DESCRIPTION:

GATCTATCAT AATTGCTTTT CTGATGCATT TAAAAATAAA TGGAACACTT AAATGTATAT 60

TACCGATGCA AACTGTGGAT AAAGTTGAAA GAAA 94

SEQ ID NO:3830

SEQUENCE LENGTH:94

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04502

SEQUENCE DESCRIPTION:

GATCACAGGC CTGGCCGCGG TAACAGACTT TTACATGGAA TTGTTTAATT ATTTGTACTT 60

TTCATGCCAG AAAATAAAAG TTCAGAATCT TAAA 94

SEQ ID NO:3831

SEQUENCE LENGTH:94

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04503

SEQUENCE DESCRIPTION:

GATCACTACG ATTAACGACG GTCGTAATGT TAAGACGTCG TCTCCATGAN CTTTGGGGGG 60

ACTTTAATNT GGAATAAAGA AACTATCACT NAAA 94

SEQ ID NO:3832

SEQUENCE LENGTH:93

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04504

SEQUENCE DESCRIPTION:

GATCCAGATN AAGTGCTGAA GAAAAGAAAA AAGAAGTGGA GAAGAGTATG NTTATNCTTC 60

TCCTTATTAA AGAAATTTNC TCAAAACAGC AAA 93

SEQ ID NO:3833

SEQUENCE LENGTH:88

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04506

SEQUENCE DESCRIPTION:

GATCTATCCA GTGACGTGGC CTGGTGGGCG TTTCTCCTTG TACTTATGTG GTTTTTTGGC 60

TTTNAATACA GACATTTTCC TCCAGAAA 88

SEQ ID NO:3834

SEQUENCE LENGTH:86
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 5 CLONE:HUMGS04507
 SEQUENCE DESCRIPTION:
 GATCCCAAAA TATGGTAAAG TGAACCCATC TGTCTGCATT TTCTACTCTG AGCCCATTTG 60
 TTAATAAACA CTTATTTTAA TATAAA 86

10 SEQ ID NO:3835
 SEQUENCE LENGTH:84
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 15 CLONE:HUMGS04509
 SEQUENCE DESCRIPTION:
 GATCCGGGCC CCAGGCTGCT GCCGCTTTT ATAACCTTAT ATTATTTTNN TTTTAAGAAA 60
 AAAAGCTCTT TAAAATACCT CAAA 84

20 SEQ ID NO:3836
 SEQUENCE LENGTH:82
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS04510
 SEQUENCE DESCRIPTION:
 GATCTGAGGA GCAAACCTCC GTGGCACACA TTTACCTGCA TAACAAACCT GCACATCCTG 60
 CATGTGTACC CCAGAACTTA AA 82

30 SEQ ID NO:3837
 SEQUENCE LENGTH:81
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 35 CLONE:HUMGS04511
 SEQUENCE DESCRIPTION:
 GATCCAGGAG GCTCAAAGAG AAGCCAAGTC AGCTTTGTTG TGATTGATT TTTTAAAAA 60
 AACTCTTGTA CAAAACGAA A 81

40 SEQ ID NO:3838
 SEQUENCE LENGTH:81
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 45 CLONE:HUMGS04512
 SEQUENCE DESCRIPTION:
 GATCGCTACT GTTATGTGGG ATTATTATTT CTAATNTTA CTCATTGAAA TAAGCATACA 60
 ATAANANGCA TTTATTGCAA A 81

50 SEQ ID NO:3839

55

SEQUENCE LENGTH:80
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
5 CLONE:HUMGS04513
SEQUENCE DESCRIPTION:
GATCAAAACA AGACCCAGCT TATTTTCTGC TTGCTGGTAA ATTAAGCAAA CATGCTATAA 60
TAAAAACAAA ATGAAGGAAA 80

10
SEQ ID NO:3840
SEQUENCE LENGTH:78
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
15 CLONE:HUMGS04514
SEQUENCE DESCRIPTION:
GATCTGGTTG AAAATTGTAT TTCTATGTAA ACTCAACGAT ATGTTTGGTT TTCCTGAAAA 60
TAAATAATTT TAAATAAA 78

20
SEQ ID NO:3841
SEQUENCE LENGTH:75
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04515
SEQUENCE DESCRIPTION:
GATCCTCACA CCTCAGCGTC CCAGAGTGCT GGGATTACAG TTGTGAGCCA CTGTGCCTGG 60
CCTTTTTTTT TTTT 75

30
SEQ ID NO:3842
SEQUENCE LENGTH:74
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS04516
SEQUENCE DESCRIPTION:
GATCAGAAAT CTGAGGTTCA ATGAGGCCAG AATAACTCAG CTTCAAAATG AATAAATGTG 60
GAAGCCAGCA CAAA 74

40
SEQ ID NO:3843
SEQUENCE LENGTH:72
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS04517
SEQUENCE DESCRIPTION:
GATCTCCCCT TGGACTGATA CCCTTTTCCC ATTCATTCAC AAATAAATTA CAATGGGTGC 60
TGAGAACTTA AA 72

50
SEQ ID NO:3844

55

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SEQUENCE LENGTH:78
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
5 CLONE:HUMGS04518
SEQUENCE DESCRIPTION:
GATCTGTGTC ATGGTTTAT AACCTTTNTN TTTTGTAAC CTGAATGTT CAAAATTAAC 60
ATGCTGTTTA CTCTGAAA 78

10
SEQ ID NO:3845
SEQUENCE LENGTH:71
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
15 CLONE:HUMGS04519
SEQUENCE DESCRIPTION:
GATCAGGAAG AACTAAACAA AACCCACACT CAAAAACTA ACAAAGAATA AATAAATAAT 60
ATAAAAAATAA A 71

20
SEQ ID NO:3846
SEQUENCE LENGTH:71
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04520
SEQUENCE DESCRIPTION:
GATCTCAGAA CAGANTTAA ATATTGTGAA AATTACAGCT TAATAAATGT TTATTGTAAT 60
TTTNTTGTA A 71

30
SEQ ID NO:3847
SEQUENCE LENGTH:69
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS04521
SEQUENCE DESCRIPTION:
GATCTAGGAC TTGCCTTATT TTATCATTTT TCTTAATAA TCTCCAATAA ACTTTCTTTA 60
TTCATTAAA 69

40
SEQ ID NO:3848
SEQUENCE LENGTH:69
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS04522
SEQUENCE DESCRIPTION:
GATCACCAC AAAGAACTTA CTCATATAAC CAAATACCAC CTGTNCTCCC AAAAACCTAT 60
GGAAATAAA 69

50
SEQ ID NO:3849

55

SEQUENCE LENGTH:69
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
5 CLONE:HUMGS04523
SEQUENCE DESCRIPTION:
GATCAGTATG CTGTTTAAAT AATTATGTGC CATTTTAATA AAATGAAAGG GTCAACGGCC 60
CNNTTTAAA 69

10
SEQ ID NO:3850
SEQUENCE LENGTH:67
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
15 CLONE:HUMGS04525
SEQUENCE DESCRIPTION:
GATCTACACT GATGATTAAA TCAAATTGGC TAAGATTATT CGTTCTAATA AAAGCACTGA 60
CTCCAAA 67

20
SEQ ID NO:3851
SEQUENCE LENGTH:67
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04527
SEQUENCE DESCRIPTION:
GATCTCTTCC TGTTTGTAC ATAGATTAT TTTTCAGTTC CAAGAAAGAT GAATACATT 60
TGTNAAA 67

30
SEQ ID NO:3852
SEQUENCE LENGTH:67
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS04528
SEQUENCE DESCRIPTION:
GATCTAGCAT ATGTATCTTT TTAAAGGTA TTGTTAATAA ATATNCTGTC ATTTGTAAAG 60
ATANAAA 67

40
SEQ ID NO:3853
SEQUENCE LENGTH:66
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
45 CLONE:HUMGS04529
SEQUENCE DESCRIPTION:
GATCCATCTT CAAATCAAGG GCTCCCTGGC TACCAAATNC TGTCTAGTAA AAATNATTCG 60
AGCAAA 66

50
SEQ ID NO:3854

55

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SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

5 CLONE:HUMGS04530

SEQUENCE DESCRIPTION:

GATCTATTCA ATGTACAAAA TATTTTGAAA GTTCTGTGA TTAAATGTNC TTGAAAACA 60

TAAA 64

10

SEQ ID NO:3855

SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS04531

SEQUENCE DESCRIPTION:

GATCTGTTAT NAACACCTTT GTTGGCTTGG TTCAGTAATA AATATGTNAG ACTTTTCATT 60

TAAA 64

20

SEQ ID NO:3856

SEQUENCE LENGTH:62

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25

CLONE:HUMGS04532

SEQUENCE DESCRIPTION:

GATCTGTGTA AGCTCTGAAT GAACTTCTTT ACTCAATAAA ATTAATTTTT TGGCTTCTTA 60

AA 62

30

SEQ ID NO:3857

SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35

CLONE:HUMGS04533

SEQUENCE DESCRIPTION:

GATCCAAGAT ACGTCATTTT TGTATTGGCA AAATGCCACT ATTAAAGTGT AATTCTTGAA 60

A 61

40

SEQ ID NO:3858

SEQUENCE LENGTH:60

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45

CLONE:HUMGS04534

SEQUENCE DESCRIPTION:

GATCTCAAGT GCTTAATGAT AAGGTGTTGA CTTGTAAAT TAAACCATT GGAATACAA 60

50

SEQ ID NO:3859

SEQUENCE LENGTH:60

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04535

SEQUENCE DESCRIPTION:

GATCAAAATGC CCTAAATGT AGTGACCCGT GAAAAGGACA AATAAGCAA TGAATACAAA 60

SEQ ID NO:3860

SEQUENCE LENGTH:60

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04536

SEQUENCE DESCRIPTION:

GATCTGAGAC TTTGAGTCTC CAGAACTGTG AGAAAATAAA TTTCTGTTTC TTAAGCCAAA 60

SEQ ID NO:3861

SEQUENCE LENGTH:60

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04537

SEQUENCE DESCRIPTION:

GATCTTTCCT GTCTTCCCA AGTTTGCAAT TCCGACATTA AAGTTTACTT TTNAGTTAAA 60

SEQ ID NO:3862

SEQUENCE LENGTH:59

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04538

SEQUENCE DESCRIPTION:

GATCAATCAG GGAGAAAATA CAGAAGAGAA TAAAAGAGA CTCATTCAGT GGAAGCAAA 59

SEQ ID NO:3863

SEQUENCE LENGTH:59

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04539

SEQUENCE DESCRIPTION:

GATCTGAATT AAGCTGTCTG CCATTGGAG AAATTAAAT ACTATTTTAA ACACACAAA 59

SEQ ID NO:3864

SEQUENCE LENGTH:58

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04541

SEQUENCE DESCRIPTION:

GATCCACCCA GGCTTTTCNG TGAAATAAAA GCTCCAAGT TGGGTACAAA CCAGGAAA 58

5 SEQ ID NO:3865
SEQUENCE LENGTH:57
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04542
SEQUENCE DESCRIPTION:
GATCCAGTC TGAAGGATTA TTGTGAAGAA TAAATGAGAG AATGTGTAAA TGGCAAA 57

10 SEQ ID NO:3866
SEQUENCE LENGTH:56
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04543
SEQUENCE DESCRIPTION:
GATCTGTGTA TTTGATTTG TACTTTAAAT GTGACAAATA AACCTTTTGG GAGAAA 56

20 SEQ ID NO:3867
SEQUENCE LENGTH:55
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04546
SEQUENCE DESCRIPTION:
GATCTAATTC TGA AACATT GTAATAAAAT AATNAGCTAT AATGGTATTT TCAAA 55

30 SEQ ID NO:3868
SEQUENCE LENGTH:55
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04547
SEQUENCE DESCRIPTION:
GATCTCGAGC GTTTATCTCG GGCTTTAATT TGCTAAAGCT NTGCACATAT GTAAA 55

40 SEQ ID NO:3869
SEQUENCE LENGTH:85
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04548
SEQUENCE DESCRIPTION:
GATCTGCCAT GCACTCCAGC CTAGGCAACA AGAGTGAAC CTGTCTCAA ATAAAATAAA 60
ATAAAATAAT AATAGTAATA ATAAA 85

50 SEQ ID NO:3870
SEQUENCE LENGTH:52
SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS04552

SEQUENCE DESCRIPTION:

5 GATCAAAGGT CATTGTGTA GATGAGTAAT TAAAAAATAT TTAAATCACA AA 52

SEQ ID NO:3871

SEQUENCE LENGTH:51

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04556

SEQUENCE DESCRIPTION:

15 GATCAAATAG AAACAGGGTT TGCAAGTNTC CATACAGATG CCTCTACCAA A 51

SEQ ID NO:3872

SEQUENCE LENGTH:50

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04557

SEQUENCE DESCRIPTION:

25 GATCCTATGT AAAATATATA TTTATGTATT AAAAATACTG AAAACATAAA 50

SEQ ID NO:3873

SEQUENCE LENGTH:443

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

30 CLONE:HUMGS04597

SEQUENCE DESCRIPTION:

35 GATCCTATTT TATAAGGAAT CTTTTTTATA CGAATGTACT TATTCCTTTA GATATCAGTT 60
 CTGGAATGTA TACTCCTTAT GATATACAGC AAGAGATTCT TGAGGTTCCC AAGAATTGTC 120
 CTGGAAAGAA AATTGATTTT GAATTGAGAT TAGCAGTGTT TTAATTCGC TGAGATAACT 180
 CCTTTAACTC AGCACTTTCA CAAACTTAA ATATTAAATA AATTGAATTT GAGGCTGGCA 240
 TTCTTCTCTA AATTGAATTG GACTGGTTGT TTGCTGAGGT ATGAATGGAG CAGCTCGGAA 300
 GTATTATAAT TCCGTAGCTG AAACAGGACG CTTATTIATG TATGNTCCAA TCTCTNCTCA 360
 TTTAAAAATG NCTCAGCATT TCCNGCCATT TAGATAGGTA AATNAATAGT CCATTANNTT 420
 40 TGNTNACCTA CCATAANTAT TTN 443

SEQ ID NO:3874

SEQUENCE LENGTH:423

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04598

SEQUENCE DESCRIPTION:

50 GATCTATGGT ACAGTTCATT GGCAGAGAAT CCAAGTACTG TGGACTTTGT GATTCCATAA 60
 TAACCATCTA TCGGGAAGAG GGCATTCTAG GATTTTCCGC GGGTCTTGTT CCTCGCCTTC 120
 TAGGTGACAT CCTTTCTTTG TGGCTGTGTA ACTCACNNCC CTACCTCGTC AATACCTATG 180

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EP 0 679 716 A1

CACTGGACAG TGGGGTTTCT ACCATGAATG AAATGAAGAG TTATTCTCAA GCTGTCACAG 240
GATTTTTTGC GAGTATGTTG ACCTATCCCT TTGTGCTTGT CTCCAATCTT ATGGCTGTCA 300
ACAACTGTGG TCTTGCTGGT GGATGCCCTC CTTACTCCCC AATATATACG NCTTGGGATA 360
GACTGTTGGT GCATGCTACA AAAAGAGGGG GAATANGNAG CCGAGGGAAA TAGCTTATT 420
TTN 423

SEQ ID NO:3875
SEQUENCE LENGTH:413
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04599
SEQUENCE DESCRIPTION:

GATCCAAATN ACCATCATCT CTGATGGAGA TGGGTTGGGT ACCTGGCCTT CATGGCACCT 60
TCACTGCTAG GGATGCTCAA GGGGCAGGCC TGGGGCCTTC CCTCCTGTCT CTTCTCGGTC 120
TTTCTCTCT GAGCANCCTC CTACCTCCCC TGCCTGAGCC TCACTCCACA GCCCTCCCAG 180
GTACCTAGCA GAGGCTGTCA GTCCTTGGCT CACCTGGAAC AGGGCTGGGG CTGGGTTGGA 240
ACAAGGTGTG TGCCNACCA CATCTCTATG ACTCTGTTCT CCCTCCCTGC ATTGTGGCTC 300
TTGTATTGTA GGGCCTCAAG AGAGTGAGGC CCTACCATCA CTGTCCATAT TAAGTCCAAG 360
CCCAAGTGNG GTTCTCTGT TCCCTCNTAA GCAATCAATN GTTNAGTTTC TAN 413

SEQ ID NO:3876
SEQUENCE LENGTH:410
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04600
SEQUENCE DESCRIPTION:

GATCCACCTG CCTCGGACTC CCACAGTGCT GGGATTACAG GTGTTAGCCA CCACCCCGAC 60
ATTATTTGAA ACTTTTATTT TATCATGAGA GAGTTCCAGG AGTCAACTGG AGAGAGATTT 120
TTGGTATGAA AATTACATAT GCAAAAAGAC TGATTCCAGT ACATGAAATT AAATCAACA 180
TTTACATTAA ATGCCTTCAA ATATGGTAAA ATGGTTTCTT TTGGCACNNT ACCTCATTAT 240
GTTTTGAATG ATTTGGTCTA TCATATGAAA TAACTTTTAT AAATATAGTA NCTCAGGCCT 300
GGGCACAGCG GCTCAAGTGG GAGGNCCTGCT TAAGCACCCG AGTTTNAAGC CAGCGTGGAC 360
AACATGGGGG GACCCCTTNC TGTCCCAAAA NTAGCTGAGC ATGGCAGCGN 410

SEQ ID NO:3877
SEQUENCE LENGTH:402
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04601
SEQUENCE DESCRIPTION:

GATCCCAACA ATGGAACCTT CTTTCTCTGC TGCAACAAA GGAATAAAAA ACTTCTGTGT 60
GATTTGATAC AGACAATTTA GAAAACTTTT GTTCAAAGT TTCCCATCCA GACTAGCCAA 120
GGAGAGCAAG GGAGGGNNNC TAATAAGCCC ATTAAGGTGT CTTCCCAAAC AAATGTTTTT 180
TTTGTCTTC TGCCCAAATG CAGAAACAGC TGCAGCTTTA AAAANTAGCA TACTTTTATC 240
TTTTGANGGA AATATGTGAA AGTTTTAGCA CTGGTTGTCT TTGGTTGGCA AGAAATTGTT 300

NAGTGTATN NATTNCTTCC TATTTGNCITG AATTTTNCCA AATTTGTCCA CAGCAAGCAT 360
GACTACTTIN NTCATATNAA ATCTCCANTG NATTTATGCA AA 402

5 SEQ ID NO:3878
SEQUENCE LENGTH:393
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS04602
SEQUENCE DESCRIPTION:
GATCTTGTC CTAATCTA ATTTATATCA AATTTATGAG AGAAAGTATT TTCCTAATNA 60
TGGTCAAATA AATTTGGTTA ACATCCTAGT GATTCTCTTT CTATATAATA AGGCAATTAC 120
AGTTTTCAAA GCATTAAGTC TAACATAACT TTAACATTTC TCTTAGGTTT CAAGACACTT 180
15 CTATTTAATA TTCATTGGGG AAAAGTTGTC CAGCTATCAG CTAGNGAAAA CACATGCAAA 240
TATGGTTGTG TAAAGTTAAG GGTATANGG NANNANANAT CAGTAGAATT ACATAATACT 300
AAANGTTGCA GTTGAAGGAA TATCCAGTN TGTGTTGGTA GTTNCTNNAA GNNTTNTAGC 360
TGTNATTGCC TTGTTTTNT AGCCCTTNGT TTN 393

20 SEQ ID NO:3879
SEQUENCE LENGTH:392
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
25 CLONE:HUMGS04603
SEQUENCE DESCRIPTION:
GATCTNAAAGC TTNCTNCTTG GACACCCCAT ACCCANAGTC CTCCAGGCCA CCCTTAAGTA 60
CAATGTTCTC CTACCTAAGA AGGCATCTGG ATTTTNTCTT TCCTTGGAAG TAGTAAAGAA 120
30 CTACTCTTTG ACTGTTTTTG ACCTCAGAGT GAACCTCAA TACTCTGGA TCCGCAATAA 180
ATCCAGTATG GTGTTATAG ATGTAAAAAT GCTATCAGGA TTTACTCCAA CCATGTCATC 240
CATTGAAGAG CTTGAAAACA AGGGCCAAGT GATGAAGACT GAAGTCAAGA ATGACCATGT 300
TCTTTTCTAC TTGAAAATG TTTTGGTTCG AGCAGACAGT TTCACTTTT NCTGTTGAGC 360
35 AGAGCAACCT TGTGTTCAAC ATTCAGCCAG GN 392

SEQ ID NO:3880
SEQUENCE LENGTH:385
SEQUENCE TYPE:nucleic acid
40 TOPOLOGY:linear
CLONE:HUMGS04604
SEQUENCE DESCRIPTION:
GATCTCACCA CTGCACTCTA GCCTGGACGA CAGAGGGAGA CTGTCTCCAA AAAAAACAA 60
45 AGAAAGAAAG AAAAACTGT AAAAAAAT TTNCTGCAAT GGNCTTAATA TGTGTGTCCC 120
TTAAAAATGT ATATATTGAA ACTCTAATCC CAATGTGATG TTATTTAGAG GTGGGGCCTG 180
TAGGAGGTAA CTGGGTCCTA AGGGTAGAGC CCTCATGANT GAGATTAGTG CCCTTATAAG 240
ANGCCCAAAA GCTAGCTACC TCTNTTCCCA CTATGTAAGG NTACAAAGNG AAGTTGGCTG 300
TCTGCAAACT AGAAGAGGAC TGATACAGTT TGGCTGTGTC CCCACCCAAA TCTTCATCTT 360
50 AGGTTTTTAA CTNCCGCAAT TCCCN 385

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SEQ ID NO:3881

SEQUENCE LENGTH:383

SEQUENCE TYPE:nucleic acid

5 TOPOLOGY:linear

CLONE:HUMGS04605

SEQUENCE DESCRIPTION:

10 GATCTTAAGG TAATTACAAA AGGGAAATTC CAAGAATGCA TAACACAATG ACAACATGGT 60
 GAGAAAAGTG CAGTACTACT TCCAAGGTAG CTAGTGTAAG GGACACTTGA GTTTTAAAA 120
 CTGTGGTTAA ATGTTTATG TGGAAATTGA TGAGTTTGTA TATTAAATAC CACTGCTTGC 180
 TGCTTTTACT AGAATCAAGT TAAGGGNCAC GTTAGAAATA GAACAGCTTA ATATCACTGG 240
 CTTCAGAGCA AAATGAGCTC GGGTGACTGC AGATTATGAT GGTAAATATG GCTTTAATTA 300
 15 CAAACATGNG GNATGATTCA CTGAAGGTGA AAAGNTAGGG CGGNTGTGNT ATTGAAAAAA 360
 AACCNCAT TTTTGGCATT GAN 383

SEQ ID NO:3882

SEQUENCE LENGTH:383

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04606

SEQUENCE DESCRIPTION:

25 GATCTATTTT TCAGTAATGA GTGTGTNCTC ATGCCTGTTT CAATATTGGG TTTTGGAGCA 60
 TTATTGTACC AGGCTGTTGA TTGCATACTG TAGAAGATTT GATGTTTANA CTGGTTCTTC 120
 TTCATATACT ATGTTTNGTC TCAGTTNCTA TGCTATTGGA TGATACTTCA TTTGTTGTTT 180
 TGGTGCTGAT GAAAAGGGNA ACCTGCTCTC CTCTATTAG ACCTTGACAC TTATTACTGC 240
 TCAGTTGTTN CTGGAGCTGA AGNAATGAAA NGTCTGGAAG GAACAGCTAT CAGATGTGGC 300
 30 CATTTGGATT GTNACAAATG AGGAACCCTG TGTACTGGGA CAGTTGCCAN AATAATATAT 360
 GTGGCCTNCT ATAATGTGCA TTN 383

SEQ ID NO:3883

35 SEQUENCE LENGTH:380

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04607

SEQUENCE DESCRIPTION:

40 GATCTGAAGC CAGAAGGGCT GAGTGATTG TNAACTTATT CTTGCATGTN GCTGTCTGGG 60
 AATGGACCAC ACTACAGCAG GTAGTNCTGG GGGCGATACT GCCGAAAGNC CGANCACATG 120
 TATTTTGGCT GCAATTGAGG NNCTTGGGAT GCTATTAATT TTGTATTICA GCAACTGCCC 180
 CTTCTCCTAT CCCAAAGCAC CAATTACTNC CCTCTGCCTC AGNGGTACCA GTATAAGATG 240
 45 ACATTCCAAA GACTGGAGGC AACTCAGCCT GAGTTAATTC ACAAATTTAT GCCATGCTGG 300
 GGCTTGAGCT TGAGCTTGGG CTTAGGCTTG GGCTCAGCTT TTGACCCTCA GGCATCTCCT 360
 TTNCCTTNT GTCTTNTTN 380

SEQ ID NO:3884

50 SEQUENCE LENGTH:377

SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS04608

SEQUENCE DESCRIPTION:

5 GATCTGTTCA CAAGCTGGTG TTCAGGAACC AATGTGTGAC TGGTCCATGC CCACTTCTGA 60
 TTATATGGAC TCAGAGACAA TGTACATGGG AGTGCTTTGC CAGTGGTAAA GTTCTACAA 120
 ATGGGAGGTA ATTGCATGGC AGGTGTAAAG TTATTGGAC CATTGAGGCC AGAAAAATG 180
 TAGATTTAAA ATATACTGAT ACTGAAAGCA GANCTGTTG ANCTAATTGC TAATTTAAG 240
 10 GNATTCAGAC ATTCATCCAA AGGNTTTAGG CCAAATGTTG CCTAAATTGT TTCTCTATTG 300
 CATATGAAAG TGATTCNGC GGCTTAACNG TTCTCTNCTN TTTATGTGCA TGGCCATAGC 360
 TGGTTGTNTT CACATGN 377

SEQ ID NO:3885

15 SEQUENCE LENGTH:367

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04609

20 SEQUENCE DESCRIPTION:

GATCAAGGTG AAGCTCACAG TGTCAAGCTT TCTGGGAGAG CTCACCTCCA GTGAAGTCGC 60
 CACTGAGGTC CCATTCCGCC TCATGCACCC TCAGCCTGAG GACCCAGCTA AGGAAAGTTA 120
 TCAGGATGCA AATTTAGTTT TTGAGGAGTT TGCTCGCCAT AATCTGAAAG ATGCAGGAGA 180
 25 AGCTGAGGAG GGGAAAGAGAG ACAAGAATGA CATTGATGAG TGAAGATGTC GGCTCAGGAT 240
 GCCGAAAAAT GACCTGTAGT TACCAAGTGA ACGGGCAAAG CCCCACAGTT TAGTCCTTTG 300
 GAGTTATGCT GCGTATGAAA GGATGAGTCT TCTTCCGAGA AATAAAGCTT GTTTGTTCTC 360
 CCTGAAA 367

30 SEQ ID NO:3886

SEQUENCE LENGTH:360

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04610

35 SEQUENCE DESCRIPTION:

GATCAAAAGTA GCTTACTATA TCTAACTGT AAAACAATAT AGTTTCTCCT GAACACCTGC 60
 TTTCTTTCTG GGAGTCTGGA ATTTTGGTAT GTGCCAGGCA GAGACTACCT TTGTGACCAG 120
 CTCCCAGTAA AAACCCAGG CACTCAGTCT CTAACAAGCT TTTCTGGTTG ACAGTGTTC 180
 40 ACAAGTGCTG TTACAACTGG TTGCTGGGAG AATTAAGCTC ATCCTCTGTG ATTCCACTGG 240
 CGGAGGATTC TTGGAAGCTT GCACTTAGTT TCCCCTNGAC TTCACCCCAT GTGTCTTTT 300
 TCCTTTGCTG ATTTTGT TTTT GTATCCTTTC ACTGTAATAA ATCATGGCCG TGAGCAGAAA 360

45 SEQ ID NO:3887

SEQUENCE LENGTH:359

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04611

50 SEQUENCE DESCRIPTION:

GATCGCAAGT GACTGCTTCC GCTTCCAGGA CTGGGCCAGC TAGTGGGGGT GGCAGAGGTC 60

55

EP 0 679 716 A1

TCITTGCTTC ATTGAGCCCT AGCTCTGTAG AGAAATGCAA ACCTCGACTC TCAAGGATGT 120
GAGGAACACA AGTTCATTTC TGTGTTGCG GAGACACTGC AGACTCCACT GTGCCGAGGT 180
TGAAGTCTTN NTTGTTGCTC AAGTTCCTAGG AGTCCCTTTC CTGAATATAT ACTTGTGTTGT 240
CATAGTTTCC TTNCAAAGT AGTAACTTT TCTATTNNTC TACTTGCCCA GTAGAGACTC 300
TTGATTCTGG AANATTCTNG NCAAAATAAT TTAATAATA CACATGGTTG CTTCTTAAA 359

SEQ ID NO:3888

SEQUENCE LENGTH:359

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04612

SEQUENCE DESCRIPTION:

GATCACTTGA GGCCAGGAGT TCAAGACCAG CCTGGGCAAC ATAGTGAGAA TGCATCTCTA 60
CAAAAAATAA AAAAATTAG CTAGGCATAG TACCTGAGGC CAGGAGGTCC AGGCCGCAAT 120
GAGATGTGTT TGTGCCATTG CACACCAGTC TGGGTGACAG AGAAAGACCC TGTCTCANGG 180
GCANNTTAAA TAAATATCT TCATATATAA ATTAAGCTAA TAAAAANTAT TTTCCCTGT 240
ATTTNTTAN TATTTCTAA TCTGAACCCA TATNCAGCTG ACTANTTCAT TCTTAGAANT 300
GTGTTATCTG TAATCTNTCC TAAACAGTGT AGCCCAAG GNTCCATGGC ACTTTTAN 359

SEQ ID NO:3889

SEQUENCE LENGTH:359

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04613

SEQUENCE DESCRIPTION:

GATCTAAAGG GGACACTGTA CTCAAGCTTT TNACCTCATG CCTTGTGTAG TAAAAAGGA 60
TTTGGGGGTT TTGTTGGTT CCTGAGAGGG TTGTGTTTG TTTTGTTC CTTTGTGTTA 120
TGTTTTGCC TTTCTCTTT GTCTTCCAT GTAGACCAGA TATTTGAAAG GGCAGACGAT 180
GGCTAGAGGT GTAATGTGCA GCTTGTGTTAT ACGGTATTTT GGGAACTTA CCTTGGATGG 240
GAAATCGAAT CGTGGATTCA CCAGGCCGGT GCTGGCACAC TCACCCTCGC CCTTCCCTC 300
CGGTTAGTA CCTATTGTT CTCCTTCAA ATATGTGATT GTACTAGCTC TTTCCATAN 359

SEQ ID NO:3890

SEQUENCE LENGTH:358

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04614

SEQUENCE DESCRIPTION:

GATCTGATGG GCTCTAACAG TGCTTACTTG CAGCCTTGTG TCCACCACCA ACTTCTCATC 60
ATGTTTCTCT CCGTTGGCCG TTGGGTTTCC AACTCTTCAA NCTTCAGGGT CTGGGNCAGG 120
GAGTGGGCCC ACCATTTGTG GGGAAAGTAT CATTCTCCA CCTCAGGCTT GGGTAGATTT 180
GGAAAAANAC AAGGTNAGGA TACGCTGTT TGAGCTTTGG GGNATGAACT TTGCTTTTAA 240
TATTANCTA NGGNTACTTT TATATGATGG GTGCTTTGAG TGTNATTNAG CAGGNTCTCT 300
TNGTTTCCG AGGGNCCTGC TTTTGAAGG TGACCNNGGT TACTTAAGCT AAGGNTTN 358

SEQ ID NO:3891

SEQUENCE LENGTH:356

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04615

SEQUENCE DESCRIPTION:

GATCAACCCA CATTAGAGTG TCTAAGGACT CCTGAGAATT CCTGTTACAG TAAACAAAAC 60
 TAACGTAATC TACCATTTC TACACTATTT GAGCATGGAA ATCATAGTCC CCACTCTGTG 120
 AAAACTTAAC GCITTTTGGA AGACATTCT GTAGCATGTC AGTTTGAGA AATGNNTGNG 180
 CTACGCCCTTG ATGAAAGAAC CGTGTGGTG CTGCTAAGTT TAGCCATTAT GGTTTNCCT 240
 NTCTCTCTCT TAAGCCTTAT TCTCAACTA AAAGATGAGG ATTAAGAGCA AGANGTTGGG 300
 GGNNGATGTG AAAATAATTN TATGNGGTTG TCTAAAATAA AGAGTAGTTT CTTAAA 356

SEQ ID NO:3892

SEQUENCE LENGTH:355

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04616

SEQUENCE DESCRIPTION:

GATCTACAAA TGTACGTTGT TACAGGGCTG CTCCTAAAG ATTTTTTTTA CCTCAGGTTT 60
 CTCTTAATAT AGTTCTCCAG TCACTGACCT TGAATTGACT TACATAAATT ACTGCCAATG 120
 TTTAAATTGC CCTTATGTTT ATATTTATTA TGTCAAGCCA ATTCGTACAT ACAATTTGGA 180
 ATCAAAATGTC ATAAGAATTT ATTATATAAA TTTNTCAAGA ATAAAAATGC CTCTCCAGCC 240
 TTAAGTATTT ACATGCTCCC AGGTCATTGT CAGTTTATGG TATTATGTTG TTTTATTTAA 300
 AGCATTGAAT TGATAGAAAA AATTGCTCTG TAATAAAAAT CTACTTTCAC ATAAA 355

SEQ ID NO:3893

SEQUENCE LENGTH:351

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04617

SEQUENCE DESCRIPTION:

GATCTCATTC TTNTTATGGC TGCATAGTAT TCCATGGTGT CTATGTACCA CATTNCTTN 60
 ATCCGGTCCA CCACTGGTGG CATTAGGTT GATTCATGTC TTTGCTATTG TGAATGGTGC 120
 TGCGATAAAC ATGCATCCAT GTGTCTTTAC AGCAGAACGA TTTATATTCC TTTGGGTATT 180
 TTTTTTGAGT ATAGTAATAG GNNNNNGGG TGGAGTGCCA GTTCTGTTT AAGTTCTCTG 240
 GGAAATCACC AAAGTCTTT CCACAGCAGA TGAAGTAGTT TACACTCCA CCAGCAGTGT 300
 ATAAGTGTTT CCTTTCTCT GCAACCTCAC CAGCATCTGT TATTTTATA N 351

SEQ ID NO:3894

SEQUENCE LENGTH:350

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04618

SEQUENCE DESCRIPTION:

GATCTTCTTG TAAGCACATC CAGAGTGAGA CTTTCTATG TTTGAAAGAA GAATGTGTGT 60
 ACATTTCAAG AATTTGGGTT TTTGGAGGG AGGAGGAACT GTTTACGTTT TTCCTCCACA 120
 CGTTTGATTT TTGACACATA CACCCCTAAT TCCTCAACAG CAGACCTCCT GCAGCCACCA 180
 GGGGCCAGCT CTGTGTAGGA ACCAGATGGT CTTTTTCCAA GCNGCATCTT CAGCTGCCAG 240
 CTAAACTCCA ACCCCAGNCA GGGAGGGGCA GGCTCAAGTC TTNCAGAATC ACACAGGGGC 300
 AACACATGCA NNNNCCGGNA CCTGTNCTGT ACNGTCTNGG TTTNTTCNTN 350

SEQ ID NO:3895
 SEQUENCE LENGTH:348
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04619

SEQUENCE DESCRIPTION:

GATCCATAGG AGGGTAAAT GTCCGTTTTTTC TTCATTAAAA CTTCTCAGCT CAAATTTATA 60
 CTAAAGCATA TCCAGGAATT AAAAAAAAAAG GTTTTGATGA TATTGCTTT CTAGTTTAAT 120
 AAGTTTAAAT ACTGAATAGG TTAAATTAAT ACAAATAAC ATAAATGCT AATATTTATT 180
 GAGTATTTAC TTGTGTACCC ACTACGNTTT TAAGTAATTT ACTGGGATTA TTTTATTTTA 240
 GTTTAAACAAT GCAGGTAGCT ACTATAATCG TCCNGGTTTT ACACCTTGAGG AACAGGGCTA 300
 AGAGAGATTA ANTTAGTGGC CCAAGGTCAG AAAGCTCGTA ATTCTTGN 348

SEQ ID NO:3896
 SEQUENCE LENGTH:347
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04620

SEQUENCE DESCRIPTION:

GATCCCAAAT ACTGCCATTG TGTGTCTAC TTATGAGTTA ATTGTGTACC TGTTAGAAGA 60
 CCGTACTCAG TAACAGGCCG GAAAATTGTG CTCTAGAAGA ATAAACTGA AAAACTCTAG 120
 AGAATTTTTT TTCCCCATTG ATGTTTAGAA AGTTTGAGAC TGAACAGGA AAGGCCATAA 180
 AATATCTGGT TCATATCACC TGTGGACAT TTCCTTTTGG ATTCATGCTT TCTGGAAGGT 240
 TTAAATTCAT TAACGTAAAT AGTTAATTAT AACTNTTNT TTAACCTAAG AGGATTCAGG 300
 GTTAAGCACC AACTAAATTA AATCATGCTA TTAAATTAN GTATAAA 347

SEQ ID NO:3897
 SEQUENCE LENGTH:345
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04621

SEQUENCE DESCRIPTION:

GATCTAGAAT CTNTNCTNGG NTAAGCATAT AGGATGCCAC TTCTTGCTAC CTCCACAGCA 60
 ATACATCACC TGGACAGCTT GCCACTCTTT GTTGCCTTGA ACTTCTCTGA TGTTTAGGCA 120
 GCCCATTCTG TGAAGTGAAC CACAGTGAAT GAGCTACATC CTCCTGCTTT CTTCTTCTAT 180
 TATNACTTTT ACCTGATTTC TTCTCAGGAG GAAGCTGTAC ATTTTAACAG GACAGATAGG 240
 AGGAAAAGCA ACTATTTTTC TGCCGAGATA ACAATTGACA ACTTGGGGCA GTATGTGCAG 300
 AGTTTTCTCG GAGTTGTATT AAAAATTATC TGATAAGCTG CCAAA 345

SEQ ID NO:3898

SEQUENCE LENGTH:342

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04623

SEQUENCE DESCRIPTION:

GATCAGTGTA CTGTTACCCG GACATACCTA TTCCTTCACA AGTTCTGGTT CTTCACTGCT 60
GCTTACTATT TTGGTAACTG GGCCTTTCTT GGGGTATTTT TGATTGGATT AATTGTATCC 120
TGTGTAAAG GGAAGAAATC GGTATTGAA GGAGTAGATG AAGATTCAGA CATAAGTGAT 180
GATGAGCCCT CTGCTATTG TGCTTGACAG CCTTCTGTCT TAAAGGTTT ATAATGCTGA 240
CTGAATATCT GTNATGCATT TTAAAGTAT TAAACTAACA TTAGGATTG CTAACNAGCT 300
TTCATCAAAA ATGGGAGCAT GGCTATAAGG CCAGCGATAT TN 342

SEQ ID NO:3899

SEQUENCE LENGTH:410

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04624

SEQUENCE DESCRIPTION:

GATCTGGTGC CCTCTTCTC CTGGATTAC ATCCCCACCC AGGGCCCGCT TTTACTAAGT 60
GTTCTGCCCT AGATTGGTTC AAGGAGGTCA TCCAACCTGAC TTTATCAAGT GGAATTGGGA 120
TATATTGAT ATACTTCTGC CTAACAACAT GGAAAAGGT TTTNTTTTCC CTGCAAGCTA 180
CATCCTACTG CTTTGAACCT CCAAGTATGT CTAGTCACCT TTTAAATGT AAACATTTTC 240
AGAAAAATGA GGATTGCCCT CTTGTATGC GCTTTTACC TTGACTACCT GAATTGCAAG 300
GGNTTTNAT ATATTCAATA TGTTACAAAG TCAGCANCCT CTCCTGATTG GTTCAATNAT 360
TGAATGTGCT GGNAAATTNA AGGTCGGTN NANTTTAAAN CAAGGNTNCN 410

SEQ ID NO:3900

SEQUENCE LENGTH:338

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04625

SEQUENCE DESCRIPTION:

GATCAAGATA TAGAGCATCT CCATTATAA AGTTCCTTCA TGCTCCTTCC CAGCCAGCAA 60
TTCTNCTTAC TGTCTGCTG ACTCTGTTT TCACCTTCAT CACCATCAGC TCATTNGCT 120
TGTNCTTGAC TCATAAACAG AATCATATAG TAGGTGGTTC GTTCAATGTA GGCAGTCTGT 180
TTTNGCTTTA ATCATTACAT GAGTATACAT CCATATNGTG TGAAGCAGTA GTTCTTTNGC 240
ATTGCTGTGT AATATTCCAT TGTATAATTG TATAAATATA TGTGGTATAA ATGTAAGTAT 300
AGCACANTTG ATTCCTTATN GGGCCACTTG GTTTATTN 338

SEQ ID NO:3901

SEQUENCE LENGTH:238

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04626

SEQUENCE DESCRIPTION:

5 GATCCACTGG TAAAGGGCAT CCCAGAGGNC AAAAAATCCCT TCAAGGAGCT CAAAGGAGGC 60
 TGTGTGATTT CATAATACAA AAAAAAGAA AAAAAATTAN ACAAATTCCT GGAAATATCT 120
 CAAATGTAA TAACAATATG ANTTTTCTC ATGCATACTA TTACTACTAA GCATGTACGT 180
 GANTTTTAA ATGTATAGAT GTAAACTTTT ANTAAANNTT GGGGTGTGGT AACCCAAA 238

10 SEQ ID NO:3902
 SEQUENCE LENGTH:331
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04627

15 SEQUENCE DESCRIPTION:
 GATCTCTATA AGTTATTAAT TTAACCTGAA ACCAAAGTGG TCTCCATTTA AAGTTACTTA 60
 ATCCCTTTGT ACCACCTATT TCTAGTTAAA TATATGTNGC TANNCAAATA GGTAAGTGC 120
 TTCCTTGCCA TGATGGTAAT GGATTGGAAC TATGAAGGCT CTCAGTGTAT TGGCTTCTGT 180
 20 AAAGATGAGG CGTCTCCTCA GAANCCCNAA CTTTTCACAT TTCTGCTTAC TAGACCTGGG 240
 TTGATGTACA TGTAAGTCT CAAACAGATG CAAGCTATGT GCAAAANGGA ACTTTAGCCA 300
 AATGGAAATA GCTGGATGCT TTGNGAATTG N 331

25 SEQ ID NO:3903
 SEQUENCE LENGTH:67
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04628

30 SEQUENCE DESCRIPTION:
 GATCCAACT GTGTTGTTCT TAAATCAAAA ATTGGNTAAT TTTTAATATN TATGTATTAA 60
 TCACAAA 67

35 SEQ ID NO:3904
 SEQUENCE LENGTH:327
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04629

40 SEQUENCE DESCRIPTION:
 GATCTGCCGG AGTCTTGAAA TTCAGCTGAT TGGAAGTGGT TTCTTTGACT TTCAAGGTCA 60
 TTCCCTATCA GTTACTACTA AGAGTTCTCT TACTGTCAGA ATCTCTCTTG CAGTACAGCT 120
 CAAAATAGTG GATGCATTC AACTTGACC ACCTTTCCT ACCAGCTAGT TAGAAGTCAT 180
 45 CAATATTTCT CTACATTTNG TTTATCTGTA AGTCCTTTAA ATCTATTTTN GCTAGGCATT 240
 CATTATGATT AATAGTAGAC TTTAAGACA ACATTNTGT CACTCCCCAC CTCCTCATAT 300
 TTNATAAAGG AGATATTAC CTTGAAA 327

50 SEQ ID NO:3905
 SEQUENCE LENGTH:326
 SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS04630

SEQUENCE DESCRIPTION:

5 GATCAAAGAC CAAAACATTT TCTTAAATAT ATTTTATGTA ATATTTTATT TGTATACAGT 60
 GTTGTGTGATG AAATATTTAA CTAGAGCATG ATATTTTAAA TGTAAAGGTG TAACATATGT 120
 TAAATAAAAC TGTATTTTN GAATTTNAAA ATTNCTTTT NGGGGGTATG ANCTACTAGA 180
 GTTTAAATTT CTGCCAACT ATTACTTATA TGTNCTATTG TGTAACATAC TTNCTNGAAA 240
 10 TATTNNGGTT TATAGAATTG ANGGTTCTTA TCAGATGGGA TACTGGGGAC TATAACAAT 300
 GGAAATAAAG CCACTGTATT TNTAAA 326

SEQ ID NO:3906

SEQUENCE LENGTH:325

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04631

SEQUENCE DESCRIPTION:

20 GATCTAATTA AGCTAAATTT TGGTGCACAG CAGGTTGTAC ATGATTTCAT GTTTATGTAG 60
 CAAATGTCAT TGAAATGTAT TAGTGTTGAA ACATACATGT AAAGGTAGTT GTGGAAATTG 120
 TTATATTTNC CTTGTGTGTC ATTTATTAG AGCATAAAGG TTTTTTTTAT TCAGCCNNNC 180
 TGAATAAGGC TAAATGAATA CTGTAATTGA AAATATATTT NAAATCTTTG TCATGAGTTT 240
 25 TTTTAAAAAA ANCTATTGCA AATTGTATCA TTCCTGATTA CACAGAACTT TGTGGGTGGT 300
 TTTAANTAAN TNTNNTACTT CTAAG 325

SEQ ID NO:3907

SEQUENCE LENGTH:324

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04632

SEQUENCE DESCRIPTION:

35 GATCTGGCCC GAGCTCTCCT CAGACCTCCC CAGACCTGTC TTCTCATCAG CCACCGCTGT 60
 TTTCTTTTGC CGAACGATGG TTGCATCTCT CGGACACAGT GTACCCCTC CCAAGCCCTC 120
 CCTGAGCCGT TCTCCTGAGT CCCTGAGGGC AGACACAGCT CCAGGGACCC AGGCCGCTG 180
 CCACACCCNC GACACTNCTG NTGTCCACTG GCCTTAGCTC CTGCAAGTTC CCCAGTGTCC 240
 GCACCTGTTT CNTTCCCTGA CCTTACCTTN CTGGGGTCTG TGACTGACTG GAGATAAAAN 300
 40 TAAAAGCAAT TGTGACANCT GAAA 324

SEQ ID NO:3908

SEQUENCE LENGTH:319

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04633

SEQUENCE DESCRIPTION:

50 GATCAAATAC CGAAATTGAA CTTTCTAAAA CCTACACATA GCATGCGTTT AAATTCTATT 60
 ATATAAGCC CCAAGTGCTT TACCTTCTAA AACATGCTTC TCTATAGGTG CAAAGTTATA 120
 AGATATGTAG AAGAAAAACAT CCATCAGAAT CTNCTGGAGA NTATGGTCAG AGTCTTAAAC 180

55

AGGCCAGTG CTGAGTNCCT TGTCCACTTA GTCACACATC TTTTGTGGGA ATGGGAAAGG 240
 AAGGAGACAG CCAAACCTCTG ACAANGGCTT TTCCTTATAG ATTAACCCAA AGCCTAGGTG 300
 AGGGTTGATA TATTAATGN 319

5

SEQ ID NO:3909
 SEQUENCE LENGTH:317
 SEQUENCE TYPE:nucleic acid

10

TOPOLOGY:linear

CLONE:HUMGS04634

SEQUENCE DESCRIPTION:

15

GATCTGAGCA AAATGTGAAC TCAGTATGTT TACTATTGCT CTTACTTGAA AACTTTTTTT 60
 CAAAAAAGC ACAAATTAAA GTAGTAAATT CATATCCATA GATAGTTCAT TCATTCAACA 120
 AATATTTACC AAGTTCCTAA TATAAGTGAA GGNCCACTTC TCAGATTACT AAGTCATTG 180
 TATGAATATG TGTGGCAGTG AAGAGAACAG GTCITTCAA AAGCATTGGA TTATCTTTAT 240
 TTTNTTTAAA TACACTCTCT NATNTTNCTA CTTGTTTTTT TGTTAATCAT AGCAGGATAT 300
 GACAACTCTT ATTTGAN 317

20

SEQ ID NO:3910
 SEQUENCE LENGTH:317
 SEQUENCE TYPE:nucleic acid

25

TOPOLOGY:linear

CLONE:HUMGS04635

SEQUENCE DESCRIPTION:

30

GATCTACTCA GATGTCATNA TACTCCATAC CTGCTTTTCC CATGGCCGCC CTACGGAAAA 60
 TCCCATCCAC AGAGGCCAGG GCTACCCAAG NCCCTCCAGG TGAGCTGGGC CTTTCCTTTA 120
 TGAACCTCCA TCCTCCACAG CAGCTACAGT AGGGCCTCCT CACCCCGTAC CCCACAGCTA 180
 GACAGTGTCA GCACTCATCT CTCCTCCCA CATTNTTGA GCTTTTTTTT TCCTCCNCA 240
 TTGACCTTTG TGGTCTTCTG TGATTATTTA TGCTGCCTCC NAAGGATAGA ATTGAAATAA 300
 AATGTTTTCA ACTTAAA 317

35

SEQ ID NO:3911
 SEQUENCE LENGTH:316
 SEQUENCE TYPE:nucleic acid

40

TOPOLOGY:linear

CLONE:HUMGS04636

SEQUENCE DESCRIPTION:

45

GATCAAAGGT TCTTCATTCA AAAAGAAGCA ATATCCTTTT GCCTGATATG GGGTGGGAAG 60
 GGTAGGTGGC GATGATATTT CAAATGAATT AGAAACCACC TCCCATTGGA TGATAGCTGG 120
 AGAAATGGAC TGACCTAGAA GTTACAGGAC CAGAACTAC AGTCACCACT AACCTTTCTA 180
 CGTGGCACCC AGCCCACTT GGAGACATTA TTTTCCATC AAACACAACC GTACTGCACA 240
 GACATCTTCA CTGTCTGTTG CAAAGATTGG AATACGTAGA TTTCTGTTCA AAATTAAATA 300
 ATATTTTAAA TACAAA 316

50

SEQ ID NO:3912
 SEQUENCE LENGTH:316

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04637

5

SEQUENCE DESCRIPTION:

10

GATCCACTGG TAAAGGGCAT CCCAGAGGAC AAAAAATCCCT TCAAGGAGCT CAAAGGAGGC 60
TGTGTGATTT CATAATACAA AAAAAAGAA AAAAAATTAA ACAAATCTT GGAAATATCT 120
CAAATGTTAA TAACANTATG ATTTTTNTC ATGCATACTA TTACTACTAA GCATGTACGT 180
GANTTTTTAA ATGTATAGNT GTAAACTTTT AATAAANTN GGGGTGTGGT AACCNGNGG 240
GNCTATGTTT TNNTAACAT AGCTGGCACA GGGTTTAAACA CATAATNGCC ATAANTATTG 300
CTTAAGGTNC TTTAAA 316

SEQ ID NO:3913

15

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04638

20

SEQUENCE DESCRIPTION:

25

GATCCACCTG CCTGGCCTC CCAAAGTGCT GGGATTACAG GTGTGAGCCA CTGTGCCCCG 60
CCAAACCATT TTTGTTAAT TTCATTTCTA CATGGTCGTC AAACGTGCCT ATCCAATGAA 120
GCCTTCATAG AAGGCCAAG AAGACAGAGT TTGGGGAGCT TCTGGATAGC GGANATGTGG 180
AGGTTCCAGG AGGGCAGGGT GCCCAGGAAG GGCATGGAAG CTCCTGTGCC TTCCCCATA 240
CCTTGCCCTA TGCATTTCTT CATCTGTATC TATTGTGATA TCCTTNACAA TAAACTGGT 300
AAACATANAT AAA 313

SEQ ID NO:3914

30

SEQUENCE LENGTH:312

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04639

35

SEQUENCE DESCRIPTION:

40

GATCACCAGC TCACGTATG TTGCCTTCTC TTTCTTTGT GTGTGTGTTT ATTAAAGTNA 60
TTTTTCTTCC TCCTCTCCCT TTTCTTTTG GCCCTCCCTC CTTCCCTCTN CTGCCATGTA 120
ACTGGAGGAT GTGCTATGAG TTGCAAACA GCTGGACTGT CAGGCTGCTT TTTTCCAGA 180
TGTTCTCTCT CTGCCTCCCC TTCCCTCCT CTCCCTCCT TTTCTTCTT TCCTTCCTTT 240
CCTTGGAGCA CTGAGCACCA TTTGGAAGCT TGAGAGAAAC CAAAATTAA GAGAGAAAGA 300
GAGAGCGTGA AA 312

SEQ ID NO:3915

45

SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04640

50

SEQUENCE DESCRIPTION:

GATCTAGAGG AAGTACAGCC ACCCACTGAC ATCTGANTTT ATATACCTNT TGAGTTTGA 60
GTGCACCCAA AACTCGATA AACCAGGTGA AGAAATTTAG CTTCCATGTT CTACTTCAGC 120

55

EP 0 679 716 A1

TAAACAGCT ACATACAACC TAGTACCCTT GANGTCAGAC AGACATTTC A GTTGCTTACC 180
TCCAGTACTG AGCCTTGCTT TGGGAAACTA AAAGATTAG ACCAAGTCAC TGCCAGTTT 240
NGCCTTNGTN GCATTNGTA CAGTTTTTAT ATNTNGGATA TCTTGTAAT AAAGACAGCC 300
AGCTTTTCAA A 311

SEQ ID NO:3916

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04641

SEQUENCE DESCRIPTION:

GATCAAACT AAAATAAGTA TAATGCATTG TAATCCAGA GATAAATCCT AGACCCTTCT 60
TGGCCTCCT CTNACATAAT TCTAATCCTA CAGTCTCAGA GATGCTGTTG TATCCTGCCC 120
CCCAACCCCA TGATAGTNAT AGTGGTTTTT GCCTTGAAGG AATTGCTTTG TATTAGCTT 180
TTCCCTCTCT AGATTTCTAG TTCCTTTTCA GTATTGGATT GGATTTGAGA TTTGATTAA 240
CTAGTACTCA GGTTCAGATG CTCGCCTCTT TGCAATTTTA ACATCTATTG GACAATAAAG 300
TCAGTNGN 308

SEQ ID NO:3917

SEQUENCE LENGTH:306

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04642

SEQUENCE DESCRIPTION:

GATCTAATGC ATCTATATC CAGTAAGTAG AATTATCTCT TCATCTGGGA CCTGGAATC 60
CTGAAATAAA AAAGGATAAT GCAATAACA CAGTTGCAGG AAAGTATGTT AGCTATATAC 120
TATGAAGTAC TCTTAGTTA CTTATGTTGA ATGGCTTAGC TATTAATACT CAAATTGAGT 180
TAAAAAGAAA ATTCCTCCTT AAAAAATCAA ACGTAATATG TATTACATT CATGGTACAT 240
TAGTAGTTCT TTGTATATTG AATAAATACT AAATCACCTA GGTGTCTATG TTCTATCACA 300
TCTAAA 306

SEQ ID NO:3918

SEQUENCE LENGTH:306

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04643

SEQUENCE DESCRIPTION:

GATCAGCTGC AGCAGGNTGG GTCCCTCTGC ATCTGTCCAT CACTGCGACT GATGGCAATG 60
ACTGAGTATA ACACCTTTCT TCATGGTCAA CTCTACCCAG GAACCACGTA GGAAGGAAA 120
TTCTGGAAA CAGCTCCCAG CCTTAGCCAA CTTGACATAT CATAATCCAA CAGANCTCAA 180
CCTCTACCAA CTTGGAAATC ATGTACATT GTCAGGACTG TATTTAATT CCACATAGAG 240
AGAAAGCAA ATTATACTT TGACCAAACT AATAGANTTA TCCATTAAAC ANACAAAAC 300
GTGAAA 306

SEQ ID NO:3919

SEQUENCE LENGTH:306

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04644

SEQUENCE DESCRIPTION:

GATCCTCCCA GCTCTGTCTC CCAAAGTTCT GGGATTACAG GCATGAGCTA CTNTGCACAA 60
GCTAAGAATA TGTGCTTTTA AATCCCATAA GGAAAAAAT ATTTTGGTA AATAAAATTA 120
AAGCATAAAT ATCATGATT ACCTGACGTT TACCGTAAGC AACATAAAAG ATATGTGATA 180
CTGAATGACT AAAANGTAGT TTTGGTAAA GAGAGTTCTA GTTCCATGA GGNCTCTGAC 240
AATGCTGCAT TTTATTTTNC TTTTAAATGT GCACATTGGT ACANGTTTAA CTA CTCTACT 300
CCTGTN 306

SEQ ID NO:3920

SEQUENCE LENGTH:304

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04645

SEQUENCE DESCRIPTION:

GATCCTGTTA TGAAAAGCCC TAAAAATAG GGTATAGAGT TTGGGCATAT TTCAGAGGTA 60
ATAAGAAAGC ATTCTGCATT TTAAAGTAA GGTAAAAA TGTTCCTAAT TAGNGATACA 120
GCAAAGTTGG TGTGAGAGGA TAAAGCTGAT ATACATAATC TGAGGAGTTC ATGAAAATTC 180
ATGTAAANCT GTAGTATGAA TTGGCCTAGG NGCAGCAGCT NAGGGCATAG NAGCTTTAAG 240
ACTTTCCAA GAGAGTGNAG GCTGGNGATA AATTGTGACT AAAATATATT TTGTGTTTGN 300
GAAA 304

SEQ ID NO:3921

SEQUENCE LENGTH:301

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04646

SEQUENCE DESCRIPTION:

GATCAAGTAA TTCTTCACT AGGTTGGGTT TGGGGAGGGG GGAAAAGAGG GGCTTTTCCT 60
AGGAGAACGA TAAGAAATGG AAAGACTCCT TGAAGTGTG CAAGGGAACC TCCTAGCACT 120
GTGAAAGTCA GAATCGCCTC AGCATTTCCA TGACGCACAT TATGCAAATC TTTTAGCAC 180
TATTTTAAGT TTGAAACTT TAACAATGAA GGGGAAGGGG AAGNTTTCCT CCAACTGANT 240
CATTTGTGCA CGTGTATAGC TCAAAGNGCT TAGACTTCAA ATATATCTGG TGAATGACAA 300
A 301

SEQ ID NO:3922

SEQUENCE LENGTH:301

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04647

SEQUENCE DESCRIPTION:

GATCTGCCTG CCTCAGCCTC CCAAAGTGCT GAGATTAGAG ACGTAAGCCA CCATGCGTGG 60

EP 0 679 716 A1

5 CCAATAAGAC TGACTTTTAA TTTTCCTTTC TTGACTGTT CTTGTCTTGT TTTGGTATCA 120
 AGGTTATATT AGCCTCATAA AAGGAGTTAA GAAGTGNTCG CTCCTTCTAT TTTCTGAAGG 180
 AGTCTGCTAA GTATGAGAAC TCTCTATTTT ATGAATGATT GATAAACTC TCTTGGAAC 240
 TGTCTAGACC TTATGGAAAT ATTCAGTAA TAGTTACAAA GCTATTCAAG TTGCTGGTT 300
 N 301

10 SEQ ID NO:3923
 SEQUENCE LENGTH:299
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04648
 SEQUENCE DESCRIPTION:
 15 GATCTCAGTT GGATAGTTGT ACCTCAAAAA AGTAGGTGAG AACTGGCTTC CTCATTGTCC 60
 CAGGATGTCA AATACTAATG ACATAAGAGC TCACTTACGT GCCAAAATTC ACTTTTATAC 120
 TAGTTTTTCA GTGCTTTAAT ATTTGTAAC NAAATTTNAA AACTCGTATT TACAAACACT 180
 ACTGTAACN CAGTGAACT GAATTGTGCG ATTGANGCTT TTTGCTTATC ATAGTATNTA 240
 20 TTACACTACT TANTTCAGTA AATATATAAA NGTAGCCTNC AATTGANGTG TNTATTGAN 299

25 SEQ ID NO:3924
 SEQUENCE LENGTH:293
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04649
 SEQUENCE DESCRIPTION:
 30 GATCAGAAAG GTGAAATGTT TCGAATTTAA AATGTTTAAA GCATGTTTGG TTTTATTATT 60
 TTTACATAAT TGTTTACCAC TAGTTTTTCC ACTAGCTTTT TATTATATAT GTTTAATTAT 120
 GTAATTGTTA TTTACTAGCT TTTATTATAT AATTCCTTTT AAATAATACT ACTATTCATC 180
 AACTCTTGTG GCATAAGAAT TGCAGTTTTT TCTACCAAAC TTTTACTTCA TCTATGAGTC 240
 GTGTTAGAAA TAGTCATTGA AAAAATATAC AGTAAATAT CTAGCAAAAT AAA 293

35 SEQ ID NO:3925
 SEQUENCE LENGTH:293
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 40 CLONE:HUMGS04650
 SEQUENCE DESCRIPTION:
 GATCTGGTGA AGGCCTNCTG GCAGCATCTT CTCAGTAAGA CCTCATGTGG CAGAAGGAAA 60
 GGGAGCTATC TGGAATCTCC CTTATAAGGG CCCNNNGGCC ATTCATAAGG GCTGCACCCT 120
 45 CATGACCTAA TCACCTTCCA AAGGCGTCAC CTCCTGGTAC TGTCACCTTG GCGGTTACGA 180
 TTTTCATCATA TGAATTTTGG GACGGCATAT TCAGTCCACA CCAGGAAGTT CTTGCACNTC 240
 ATAGTCGAAA GTCAGTTTTG TGGCTATAAA AATCTTGTTT CCATTTTCCG CTN 293

50 SEQ ID NO:3926
 SEQUENCE LENGTH:292
 SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS04651

SEQUENCE DESCRIPTION:

5 GATCCACCCG TCGTCGCCTC CCAAAGTGCT GGAATTACAG GCGTGACATG CATGCCCGGC 60
 CAACATATAA TTATTATACA ACCCAGCCAC TGCACTCTTG GGCATTTATT CTAGAGAAAC 120
 AAAAACTTAT CCCCACTCAA AAGCATGTAC GTGAATGTTT TTAGCAGTTT ATTTTATAAT 180
 GGTCAATATC TGGAAACAAT CCAAATGTCC TTCCATGAGT TAATGGTTAA AATAACTGTG 240
 10 GTGCACCCAT ACCATGGAAT ACTGTTGAGC AATAAAATGG TATGAAATGA AA 292

SEQ ID NO:3927

SEQUENCE LENGTH:291

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS04652

SEQUENCE DESCRIPTION:

20 GATCCTATCT AAAAATATGT AGTTATTAAT CATTCTGTGG ATATTTGTNA ATAAGGTAGT 60
 TNCTATGGTC CGAATATCTG GGCCTGCCCC CCCAAATNAT GCTGAAACCT AATCACCAGT 120
 GTGATGGTAA TAGGAGGTGG GACTGAGCTC TGATGAATGA GATTAGTGCC CTTATAAATT 180
 ATGACCAAAA GAGCTCTTCA CTCCTCCTAC CATTGAGGA TACAGTGAGA AGCCTTCATC 240
 TATGAACCAC AAAGTAGCCC TCATCAGACA CTGAATCAGC CAGTGCCTTG N 291

25 SEQ ID NO:3928

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

30 CLONE:HUMGS04653

SEQUENCE DESCRIPTION:

GATCTCACAG AAGTTATTCA ATCTCTAGGT TGCTTTAGCA TCTACTTGTG TAGTGAGAAG 60
 AGTTATTTAC TTATATTGTG CATGAGGCCG TTTAGATATG TTAATGCAA AACAGAACTC 120
 35 TTGCTAGCTA AACACAGTAG AACTTGAATT TTTTTTTTNA GAGGTATTAT AATANCAAAA 180
 TCAGGTTATT TGTGACTTGG TTGAAGTAAA CGGTGCTCA GATAAANTAA TTNGTTAAAA 240
 GAGTTGCCCA NTTTATGTCT TATANCTTNA ANCAANTANN TANTAATAAN 290

40 SEQ ID NO:3929

SEQUENCE LENGTH:287

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04654

45 SEQUENCE DESCRIPTION:

GATCTGGGAT GTGAGTGTAT CAAATCTTAT CAAATCCATT GACAAATCAG TGGTGCTATA 60
 CTGGAAATGG CTAATCCTTT GGATGAAGGA CCTCATTTC CAGTTGCTTG GAACAAANGA 120
 GAATTACAT NNNCTGTAA GAAGGGAGAG ACGGCAGTTG TTGGTAGACA CACAGNNAAG 180
 GGTGCCCCAG AATAATTCTG TCTGGATTAA AGGTCCCAGG GAAGTGACGG NGCCATTTCT 240
 50 GTACCAAGAG GTGAATATAA TTTGCATGTT NNGTGCAGT AATTAAA 287

55

SEQ ID NO:3930

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04655

SEQUENCE DESCRIPTION:

GATCCCAAGA TGA CTGGGGT GGGAGGTCTT GCTAGAATGG GAAGGGTCAT AGAAAGGGCC 60
 TTGACATCAG TTCCTTTGTG TGTACTCACT GAAGCCTGCN TTGGTCCAGA GCGGAGGCTG 120
 TGTGCCTGGG GGAGTTTTC TCTATACATC TCTCCCAAC CCTAGGTTC CTGTTCTTCC 180
 TCCAGTGCA CCAGAGCAAC CTCTCACTCC CCATGCCACG TTCCACAGTT GCCACCACCT 240
 CTGTGGCATT GAAATGAGCA CCTCCATTAA AGTCTGAATC AGTGCAGAAA 290

SEQ ID NO:3931

SEQUENCE LENGTH:287

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04656

SEQUENCE DESCRIPTION:

GATCCTGAAG GGAAGGGGCA GGGATTTC TCCTCTCTG GTCCTGGCTC CCAAGGGCTT 60
 CTGTCTTCAT CTCTGCATGA GCTCTCCTC CCAGAGACCA ACTCTTTTN ATTNATTN 120
 ATTNATTTT TNAATTATG TCTGGAGCCT GGCTACTCTG CATTGGGNT TGGGGATGCT 180
 GGGTGGGTGT GTGGTCCATG TTCAGCGTTC TAGCAACACG TGTGTGTGTG TGTGTGTAAA 240
 GGCTATGCAG CCAAAATACC ATCTGGCCAG ACGGGCCAC CCACAAA 287

SEQ ID NO:3932

SEQUENCE LENGTH:286

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04657

SEQUENCE DESCRIPTION:

GATCACCTGT TCCTACAGTG ACAACTGGAC CTGGCCCGAA CCCCTGGCAT CTGGCAACAT 60
 TATTACCTGT CGAAACAGAA GTAGAGATTT GAAATAGAGG ATGCCAGTTC CCATTTCCTC 120
 CTGCTGTCTG GAAGGAAGTC TGGCTTTCCA GCCCAACTCT AAGCTCATCT TTACATACAA 180
 AATAAGGGTA TGTTTACATG GAAAGCAAAA ATAGAACCAT GGATTACAG AAGGTTCCAT 240
 AGCAGCAAAT ANCAGTGCTT ATGAAATAAA CATTTTAAAT ATTAAA 286

SEQ ID NO:3933

SEQUENCE LENGTH:283

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04658

SEQUENCE DESCRIPTION:

GATCTAATTG TGAATCGTT CACCTTGTTA AACATCTAAG TAAGTCTGTA GTCGCTCTGC 60
 AAACAGCCAT TATATTTATT TACTCTAGAA GAACTGTAG AGTAGTAATT CGTGCTAATG 120
 AGAAAAACAA AATACCATGT TCAAAACAGA TGTATTTGAA AACTTAATGA CATGGTTCCA 180

EP 0 679 716 A1

AAAACTAGAG CATGTATGTA TGCTGTGCAT CATCTCAGCA GACCTAAAAT ATCCCCAAGT 240
TGTCCTTTA CAGCCATCAA TATATTNAC ACTCTGCGGC AAA 283

5 SEQ ID NO:3934
SEQUENCE LENGTH:283
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear

10 CLONE:HUMGS04659

SEQUENCE DESCRIPTION:

GATCTGAGTC CTAGGNCGC CCTCATTAC TAGCAGTAAG AATTTAAGTG GTGCATGGCA 60
CATAGCACTG TACTAGATTC TGCAGGGGCA CAAACATAGA GCCAAACACT CTCCTCTTG 120
GAGAATTTC GACCCAGAAA AGGCCACGCA GTTCTAATT TTGTCATCGG TTCCTTTTGC 180
15 TAAAAGGCAA AGGGTATGTT CCTTGCCTAT TGTCCAACAT ACCCCTTCCA AGATTGTGAG 240
AAGATGGGTA GCTGGGCATC ATTAAATATT GAATCAATTG AAA 283

SEQ ID NO:3935

20 SEQUENCE LENGTH:281
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04660

SEQUENCE DESCRIPTION:

25 GATCCACAGC TTGCAGGAGA AAGTCAGTGG CCCCAGACAC ACGTAACAGG GTGAGCACTG 60
AAATAAGAGC ACGCTGGGGC GTCCACACCA AGGGACTACG CCCCAGTCTG CCCACCTATC 120
TTTCTCCAT CATTAAACCA GCGCTCTTTC TCCCTGGACT TCCAAGTACC AATGACCTTG 180
GGGCTTCTTT GCAGTTTAAA GGGAAAATGC TCTACAAANT AATTTCACTN TCAAACANNT 240
30 CAGCAGAAGA ATAAAATNTT TTTTCTGGNA TATCTAGTAA A 281

SEQ ID NO:3936

35 SEQUENCE LENGTH:280
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04661

SEQUENCE DESCRIPTION:

40 GATCCAATCA CATGGCAAAT GCCTCCTTTC ACAATAGAGC ATGGTGCTGT TTCCTCACTT 60
GANCTGAAAC TTCATAGAAG ACCAGGTGAG ACCACAGAAT ACTAGATGNN AATGTTTCATG 120
TAGGTAAGCT TTATATTTCC TTCCAAGCTC CATTGCTACA AAGGTGTAAA TAAAATACAT 180
TTTTATGAGT TGAAGTAACT TCATGGTAGA AAATAATAAC TCTGCCTTCA AAAGCAAATA 240
ATGGTTTCTT TGTTAACCAA TAAAGCATAA GANAATGAAA 280

45 SEQ ID NO:3937

SEQUENCE LENGTH:278
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
50 CLONE:HUMGS04662
SEQUENCE DESCRIPTION:

55

EP 0 679 716 A1

5 GATCTTTAAA TTTTTCCT TAGTTAAGTT CTGTATTTAG TGAATTAATT GCATCCTAAA 60
AAGTCAAAC TGAAGGAC ATTTTAAATG GCAAATCTAT TTTTACATG TTTGTGAAGT 120
TTTTATTTT TAGTAAACAG ACCATCAGAA GAGAACAATG GTACAGAGCA GGGGTCAGCA 180
GATGGATTTT GTANNGCATC AACTTGTAAG TATTTTCAAG TTTATTAGCT GTATGGCTCT 240
GGTTTCTGTT CCCTGTTCCA AATGTAAAG TCTACTGN 278

10 SEQ ID NO:3938
SEQUENCE LENGTH:301
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04663
SEQUENCE DESCRIPTION:
15 GATCGACATT TAAAAATGA GGTGAAAGAA AGCTATAGTG GCATAGAAAA AGTATAAAGC 60
TCAGTTAGTT TTTTATTAT TATTATTATT AAAAGTTAAT TCAGGACTGA TGTGACCTAC 120
CAGATTTCAG AACATGTGTT AATAGTATAT ATGCCACTGA AACTTAGGT CCTGTATCAT 180
ACTTTTNCCT TTAAGACTTT TTAAGAAATA TTAAGTAAAC ATGTGGCTTG CTCAGTGTGTT 240
20 AATTGCAAGT TTTCAATCTT GGACTTTGAA AACAGGATTA AACGTTAGTA TTCGTGTGAA 300
A 301

25 SEQ ID NO:3939
SEQUENCE LENGTH:276
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04664
SEQUENCE DESCRIPTION:
30 GATCTCCCTT TTACAGATAT CAGAAAGCAT GAAAAAATA GAATTGGATT TAATGCTTTG 60
CAGATATTCT GTTTTTTTC CCAATTATTT GATTTCACCT ATATACATAT TCTTTNNTCT 120
TTTTCTAGC TTTAGAAGCA AACCAACAAA AGCAGTTTGG ACTTTAGTAA CTTTTTTTAA 180
CAGCAGCATT TAGAACAGTT TGCATGTTCT GAGGAATATT ATATGTGTGT TGGGGGGAAA 240
35 GGAATTCACA CTGAATAAAT TTAGAAATA ATTTAAA 276

40 SEQ ID NO:3940
SEQUENCE LENGTH:277
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04665
SEQUENCE DESCRIPTION:
45 GATCTTACTG CAAAGGAAAC TGACAGAAGA AAAAGAAAGT GCTTTTGAAT TTNTTCTCTC 60
TGCCTGACTA GACAATGATG TTAATAAATG CTTCAAAGCT GAAGAATCTA AATGTCGTCT 120
TTGACTCAAG TACCAAATAA TAATAATGCT ATACTTAAAT TACTTGTGAA AAACAACACA 180
TTTTAAAGAT TACGTGCTTC TTGGTACAGG TTTGTGAATG ACAGTTTATC GTCATGCTGT 240
TAGTGTGCAT TCTAAATAAA TATATATTCA AATGAAA 277

50 SEQ ID NO:3941
SEQUENCE LENGTH:279

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04666

SEQUENCE DESCRIPTION:

GATCCTAAGC CATAGACAGG CTAATTGCCC ACCACTCCCA GGAATATTGA AATAGCTACA 60
 TGACCATAAT GTGTTTAAAA TGTGGTATGC TCTTGAGATA TTAAAGTTT TGGCAGTAAA 120
 ATACTCTGTT TTTAAGTATG AATGTATTTT ATTCATATTT CCTCTCACAA AGGAAAATGA 180
 CTTCAGTATA GATTGTGTTT TATTAATAATG CATTTTTTAT TCTTAAGTGG TAGGAAGCAA 240
 CATCCAAAAN TGCTTAATAA AATGCTTTTA AGCTGCAAA 279

SEQ ID NO:3942

SEQUENCE LENGTH:273

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04667

SEQUENCE DESCRIPTION:

GATCAACTGG CTTTCTCTA TTATGACTTT AGATGAATCG TTTAATAGA TTTGCTAATG 60
 TTAAGACATC TCTGCATTTC TACAAGAATC TGATGTAGTC ATAGTATACT ATTCTTTTAA 120
 TATACATCTC CTTTCAATGT TAACAGTGGT TATTTATGAT TGGTTGGTCC ATAGTAGATT 180
 TTTATTTTGT GTTCTTATC TGNACTTTCT GATTTTCCTA CAAAGATNNG NGNNNTACTT 240
 GTATAATAAA AATAAGAGCT TTAAATNGTG AAA 273

SEQ ID NO:3943

SEQUENCE LENGTH:268

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04668

SEQUENCE DESCRIPTION:

GATCGCGTCC AGATGGAAAA CGGAAGCAGA GGCTTCTAAT CGTCGCATTT ACTGGCTCCA 60
 GTGCAACACA TCCATCTGAA AACACTCGGA AGTCTGGTGC TTGGAGAGGG TGCCATTGTC 120
 TCTTGACAT AAGGTCATGA CGTGCTATG TCAAAAGTTC TTATATATTT CTTTATAAAG 180
 CTGAAAGAAG GTCTATTTT ATGTTTTTAG GTCTATGAAT GGAACGTTGT AAATGCTTGT 240
 CAAACAATAA AAATAACGAA AAGTGAAA 268

SEQ ID NO:3944

SEQUENCE LENGTH:268

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04669

SEQUENCE DESCRIPTION:

GATCTNGTGC CTGGAATAG CCTGAGGTGG CTCAGGAAGC GGAGAAAGGG TGCCAGACCA 60
 TTCTCTGGCG GGGACCAGGG CCCAAGGCC CAGGGCTGGA AGNAGACCAA GGGGCAGCCG 120
 CCCTGGAGGG ACATCAGTGC TTCCTCTTCC ACCCAATTCC CCCACGCGGT TCCATGTTTT 180
 CCCACCAGCC TGTGGCGAA GTTGCTGCTC CGGCATTAG TACCTNNTNN NNCCAGAGAA 240
 ATANNNGAG TTTCTATTTT ATGTTAAA 268

5 SEQ ID NO:3945
 SEQUENCE LENGTH:267
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04670
 SEQUENCE DESCRIPTION:
 10 GATCAGATGG TTTAAGGCTA CAACACGAGG CCAATATCTG TATGTNAAGG AGACAGAAAC 60
 ATCAATGTTT GGAGTATATA TTGACCTTCA TTCTTACTTT CTCCTTATTC TCTTATGTAA 120
 CTGTTAATTT TTCCCTTCCT TGGCTCTATG TATTTAATTA TAATAAGCTT TACCTACAAG 180
 CAAAACAAAC CAAACATGAA CAATGAAAAC TACTTTTGGT CATGTAGCAG AAACAGCAGT 240
 CAATAAAGGA GAGAATGAAA CTAGAAA 267

15 SEQ ID NO:3946
 SEQUENCE LENGTH:266
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 20 CLONE:HUMGS04671
 SEQUENCE DESCRIPTION:
 GATCTGTGA AAGCTGATGC CCATGTGCCC TGAGAGCTGC CTCTCAATCC CTGTCCAAG 60
 CCACAGCTAT GGCCTTAATG TCACCACTGT TCTCACCTC TAGGCCCTGT GCCTGGAGGT 120
 25 GCCTCCACAG CCGACCAGCA GCCACCCCGC CTGCTTCATC CACATCAGGA GGGTCCGGTG 180
 AGGCTGCAGC AGTGGTTAAG GAGTAACACC TTCTGTATT AAGGAATTTT AAATAAAATA 240
 AAATGTATGT TGGAGATACT GTTAAA 266

30 SEQ ID NO:3947
 SEQUENCE LENGTH:265
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04672
 35 SEQUENCE DESCRIPTION:
 GATCCCTAGG TCTTGGGAGC TCTTGGAGGT GTCTGTATCA GTGGATTTC CATCCCCTGT 60
 GGGAAATTAG TAGGCTCATT TACTGTTTTA GGTCTAGCCT ATGTGGATT TNNCCTAACA 120
 TACCTAAGCA AACCCAGTGT CAGGATGGTA ATTCTNATTC TTTCGTNCAG TTAAGTTTTT 180
 40 CCCTTCANCT GGGCACTGAA GGGNTATGTG AAACAATGTT NAACATTTT GGTAGTCTTC 240
 AACCAGGGGT TTTTCGGTT TAACN 265

45 SEQ ID NO:3948
 SEQUENCE LENGTH:265
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04673
 SEQUENCE DESCRIPTION:
 50 GATCTAGNAA ATGCATATAT TTAGCGGGTA TTGAAAGAT AGAAGCATT TTTATAACTG 60
 AAGAGTATAA CACTTATCTN CTAAAGTAA TGCTCTCATA ACTTGATAC ATTTTNCAG 120

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EP 0 679 716 A1

GTACAAATTC AAAAGTATGT AAGCATTGTA TAATGTGACA ATTGTATAAT TTATGTAATC 180
 TGATGCATGA NTCAGAATTT TTATATAATA TATGATTATN GACTTATAGT TGATTAAANGT 240
 GTTTAANCCT AAAANANAAN ANNNN 265

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SEQ ID NO:3949
 SEQUENCE LENGTH:263
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04674
 SEQUENCE DESCRIPTION:

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GATCTCTAAA CTAGCTCTTT TGTTAGTATC GTCTCACAAA CTGATTATTT TCCTCTTTCT 60
 TTGGTAAGGT CAATAACTGG GAGATGGACA AACTAGAGAT GGAAGATGCA GTCACATTTT 120
 TGAAGACTAA AATCTATTCA GTAGAAGCTC TTCCTGTTGC TGCTGTAAAT GTGCAAAGCA 180
 CACAATAAAG TGAATAATCAA CCTTTTCATA TTAGGAGACA TGCATTTGTA AAAATTAATA 240
 AAGATGACAA GTCAGTTNTC AAA 263

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SEQ ID NO:3950
 SEQUENCE LENGTH:261
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04675

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SEQUENCE DESCRIPTION:
 GATCCACACA CTACAGGAAA CAGTTGGCTT TGGAAATCCA TCTTTCTGAT ACCCCTCCAG 60
 CTGAACAATT TTCTGCATGG GACTCTGAGT TCCTTTCCTT CCCAGAGAGT TTTACCGTAT 120
 GAAGCCTGGA GCTGGAGAAC GAAAGAATCT TCACTATAAA CAGAGACCCA TTCATTTATT 180
 TCCATTGGCT GTGTTACTGG ATGTTTTACT GGTGACGAG AACTGGGTC ACAATAAAAA 240
 AATGGAGATA TGAAACTCAA A 261

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SEQ ID NO:3951
 SEQUENCE LENGTH:315
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04676

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SEQUENCE DESCRIPTION:
 GATCTGTTTG TAATACAAGG TATTTGGNCT TGTCTTTAAC TGTATAGTGA TTTGTGGGCA 60
 GGCTGCAGGA GCCAGGATAA AGAATGCATG TTTGAAATCT NCTCTATACA AATGCATCCA 120
 CACTCTCCNG CAAAGGGATG AGTTTCTTAG CCGTTTTTCAC TTGATACAAA TGCTATTGTT 180
 TCCTTTGGAN GGNGTGAAAA ANTGNANGCT CCACCTGCTC CGTGAGTAGC ATTGCTCTCA 240
 ACTGGTGTTT CCAGCCGTTT ACATGTCTAC CCATTCTCTC CCTTANGGTT TTCTTAGGGN 300
 GCNGGNGGNT GNNTN 315

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SEQ ID NO:3952
 SEQUENCE LENGTH:258
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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CLONE:HUMGS04677

SEQUENCE DESCRIPTION:

GATCTAAACT TGATATGTTA AATTAAATT TAATTTCCCC AAGTGTGAGT ACTATATGTN 60
 ATTGTAGATA ATTTGCAAAC TACAAAAAAT AAAAATAATT GGCTGGGCGT GGTGGCTCAT 120
 GCCTGTAATC CCGGCGCTTT GGGAGGCCGA GGTTGGTGGA CCACCTGGGG TCAGGAGTTC 180
 AGGACCGGCC TGCCCAACAT GGTGAAACCC GTCTCTGCTA AAGGTATAGA AGCTNGCCGG 240
 GTGTGGTGGT GGGCACCN 258

SEQ ID NO:3953

SEQUENCE LENGTH:258

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04678

SEQUENCE DESCRIPTION:

GATCCTCACT CAACGAAAAC TCGNTTGGA ACTGTTCCGN CTGGCAGTCC TTTTTTGTG 60
 TTTTCATCT CATTCCCTT CCATCTGAAA GTGGCATTCA GCTGACTNGC TCATTTAGAC 120
 NGTTCACGGA GTCTGAATCT GCCAACGTGG TGTGGAGGC TCCACCTTGA AAAGGGCCAC 180
 AGTCAGGGCA ACTTCCCCA TACAGGAAAA CTTGAAAATT ACATCAACAG TCTACGTCAC 240
 AGCCAAATTA TATTTCCN 258

SEQ ID NO:3954

SEQUENCE LENGTH:257

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04679

SEQUENCE DESCRIPTION:

GATCCAGTGG CTGCAGTTC AATCCCAGTG CTGNANTCAC ACATCCATTC TGCCCTGGGG 60
 GACCCGTGGAG CTTACTTGTT CGCTTTGCAT TTCATTGATT GACGNCTCCC TTCAACAAGC 120
 ATTTACTGNG CGCCTACTAT GTACTAATGC TAGANGTTAG ATGTACAAAG AAGACAGTTT 180
 TCATCTCTA GGNACTCATA GGCTAATGGT GAGACACACA GACANACATC ATTATATTAN 240
 AATANGCTAA GNGAAAA 257

SEQ ID NO:3955

SEQUENCE LENGTH:257

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04680

SEQUENCE DESCRIPTION:

GATCTACAAG GCCACACAGA TAATTNCAA TACATCTCAT TTCCTTCTGA TTCAGGCCTC 60
 GGNAGACCCC AAGGGGAAGG AGTTCTCATG GGNACTATA ATCNATGAAG CTGAAGTTGN 120
 AATATAGANG GCAGATTAA AGTTACCATT TTTTTTAAA CACCAGCTAT GGTCTTTTCA 180
 AAATTGTACA AGCTGTCAGT ATCACCTGCA CATGAGCAAT TTAGTCTNNN GGNGNGTGTA 240
 GAAGTTTAGG TCTTTNN 257

SEQ ID NO:3956

SEQUENCE LENGTH:256

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04681

SEQUENCE DESCRIPTION:

GATCTGCCCC CCTCGGCCTC CCAAAGTGCT GGGATTACAG GCGTGAGCAT GAGTGCCCAG 60
GCAGAGAAGT CCTACACCAC GTGTCAAAC CGGAACACAA AGGGNCACTG TCTTATTGCT 120
TGGTACAGTA CTCCTGTTTG TTGAGAGCCC ATTTACTAGA GCAGCTCTGT TTGTGCTTAA 180
TGAAAGCTCT TTTCTGAGAG GCAACAGAGT GTGTTCTATC ATAAATGAAG CGCTCTTCAA 240
GAACTTCCTG AGCAAA 256

SEQ ID NO:3957

SEQUENCE LENGTH:254

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04682

SEQUENCE DESCRIPTION:

GATCCACCGT CGGATTCCGT CTGCAGAGGA GGACGTAGGG GGCCGTCACA CCCACCAGGC 60
CTCCCTGCTG TGCTTTAACA CAGGCAGAAG AGGTTTCATGG CAATATAATA GTCAATGAAC 120
TTTCAGTTTA AATTGTGTAC ATTTTAAAT TGTAAGATTT TTAGTGTATA TTGATGCATA 180
GTGTGATTCA ATAAATTGCT TGTAATTTAA AACTATTTA ATATTCAAAA TAAATATAGT 240
TATATATTTA TAAA 254

SEQ ID NO:3958

SEQUENCE LENGTH:252

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04683

SEQUENCE DESCRIPTION:

GATCTGTTTT AAAGTTGGGG GGTGGGAAAT TTAGCTGACT AGGGACAAAC ATGTAAACCT 60
ATTTTCCTAT GAAAAAATT TAAATGTCC CACTTGAATA ACGTAATTCT TCATAGTTTT 120
TTTAATCTAT GGATAAATGG AAACCTAATT ATTTGTAATG AATTATTTAG ACAGTTCTAA 180
GCCCTGTCTT CTGGGAGTTA TCANTNTTAA AGAGANCTTT TGTGCAATTT CAAATGAAGT 240
TTTTATAAGT AN 252

SEQ ID NO:3959

SEQUENCE LENGTH:251

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04684

SEQUENCE DESCRIPTION:

GATCCGGAGT CTTTGAGGCC ATNTTGAAC TACTAATTCA ACTAATCCTG AACCACCATA 60
TTTTCATATT CATCCATGAA GTGTTAAGTG TTCTTATGAT TTAAACCACT TAGCATTGGT 120
TTTTATATTT CTGCAGCCA AAATCTTCT AACAGTAAAA TAAAGTTTCA AGTTTCATAA 180
GTGCCAATGA TTTTAAATG TTAATAAATT TGTACTAAAT AAAAATGGCA ACAGGAGCAG 240

GTAAACCTAA A

251

SEQ ID NO:3960

SEQUENCE LENGTH:251

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04685

SEQUENCE DESCRIPTION:

GATCTTCTAA CTTATAAATG TCAAATATAT TTTGTATTA GATTGTGCCT ATNATGAGAG 60
 AAATCTTTAA TGTATATTTN ATGTATGCTG AACACATTTT TATAATTTGN CACACTTGGA 120
 GGCATGGTCT AGTAATAATA ATGTAATATG TACCTTGCTG GTTANTATAA CTAAGATTTT 180
 GCCTTTATTG GGTTAGGTAT CTNTTNTTAA TTNTNGCACC NGNTAGCTGN CTTCTACTGA 240
 GTAAAGANTT N 251

SEQ ID NO:3961

SEQUENCE LENGTH:251

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04686

SEQUENCE DESCRIPTION:

GATCCAACCT CAAAGTAAAA GTTGGAAAGG GCAAGAGTCT TTAAAGCGGA ACTTCAATTC 60
 TTTTNNCATG GTTACTTATA TATAATGAAT ATAAATAGAC AAATAGGACT TGGAAAATGT 120
 GGTATATTCT AAGTCAAGAT GCTATGAAAT TGTATAGTT TAAGGNCAT TCTTAAGAAG 180
 GAATTACTTA AGTNCATTAC TCTNCTCATT TCAAGGACAT GAAAAAGTAA AGGATGGTCT 240
 GGCACATTT N 251

SEQ ID NO:3962

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04687

SEQUENCE DESCRIPTION:

GATCCTGGAG ACGCCATTTT CGAGATTGTT CTGCATATTC ATTTGCACAT TGTTGTCTGG 60
 GTTGGACATG CGTGTGGGCT TCAGTGTGAG GCTTTTAATA TGTATATCCT GTTATCAATA 120
 AAACAATTAT CCAAGTGGTT GAATCCTGTG AGACTTGGCA AGTGTGTGCA AATNAAGTAT 180
 ACTTGACTTT TCAACCTCTT CTTTCAATGT NGCNNTTATA TGAATAAAG TAATCCATTT 240
 ANCAGTAAA 250

SEQ ID NO:3963

SEQUENCE LENGTH:245

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04688

SEQUENCE DESCRIPTION:

GATCGACATG AGATACAGAC GAGAGATTAT GTCTCTTATG GCTTTATCAT CAATTAAACT 60

5 TAGCAAAGTC TGTTAAATTT ATTCAGAGT CTCCCAGCTG TGAAGTAG AGTTCCACTT 120
ATGTCATCCA TATCTGCACA GTAATCTTTT TTTAATCCT AACTTTCTT AACAGGTTTC 180
TNCTCCTNAT TCTAGACAAT AATGCTATGT GTTTTCCTTG AATACCATGA TTTTAAACTN 240
TTAAA 245

SEQ ID NO:3964

SEQUENCE LENGTH:245

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04689

SEQUENCE DESCRIPTION:

15 GATCGGTCAT GCTGGGGCCA AAAACATGGC AAGAAACGTC CCACTGTCAA CCTCCCGGGC 60
AAGCGTGTGC ACCTGCAGCT CAGGGCCAGC CCACCACACT GCCTTAGTGA CACTGCAGCC 120
GGGGGAGCCA CAGGCCGCCA GCAGGCTGAG GAACAATGCC GTGTGACCTT TCCNNCNNNN 180
AAAAAACAAA AACTGCAATT TTTATTCAAA TAAAAAAGG GTAAAAATAA AAGTTAATAA 240
GGAAA 245

20 SEQ ID NO:3965

SEQUENCE LENGTH:244

SEQUENCE TYPE:nucleic acid

25 TOPOLOGY:linear

CLONE:HUMGS04690

SEQUENCE DESCRIPTION:

30 GATCATGGAA AGTTTCAGTG AAAACCATCA TGCTGTCTTC CAGAACCACG TTCTCCTCTG 60
AGGAGGATGA ATGAAGGTTG GGTTCAGTC ATCATGCCTG CCCTTTTTTT CTTTGTATTG 120
TTTCTTAAGC ATCTCAGAGT CCTCTCATGG AATTGTTTT CTATTTCCCC TCCCAATCTC 180
CACCTCACTC CATATCATAA GACATGTCTG CATTCTGGAA TATTAAACGT GGACATGGCT 240
CAAA 244

35 SEQ ID NO:3966

SEQUENCE LENGTH:244

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS04691

SEQUENCE DESCRIPTION:

45 GATCATGCTT TTCCCTACTA AACTTCTGTA ACTGCATGTA TGATACATTA TTGCAGAGGT 60
AAGAGATAGT TTAATGGATT TTTAAAAACA AATTACTATA ATTNATCTGA TGTCTCTAG 120
TTGCATTTTG CTGAAATGTA GTGCTGTTCT AAATTCTGTA AATTGATTGC TGTGAATTA 180
TCTTTCTGTT GAGAAGAGTC TATTCATGCA TCCTGACCTT AATAAATACT ATGTTTCAGTT 240
TAAA 244

50 SEQ ID NO:3967

SEQUENCE LENGTH:242

SEQUENCE TYPE:nucleic acid

55 TOPOLOGY:linear

CLONE:HUMGS04692

SEQUENCE DESCRIPTION:

5 GATCCAAGCC CTTGTTTCTGTTGTTGCTT GATAAGACAG GGGTTTCTCT TTTTGTGACC 60
 TTTATTATTA TTATTTTGT AACTGTTGTA ACCAGTTAGC TGTGTGTTT TAAGATAGAA 120
 AGGAACAAGA CTAAAATTGT AAATACTTTG TAAACATCAG CATTGTACT TGAATAGTAG 180
 GATTTTAAAG GGCATTGATA GCATACCAA CAAAAGGCAA AATAAAGTGA CCTTTTATA 240
 AA 242

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SEQ ID NO:3968

SEQUENCE LENGTH:241

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04693

SEQUENCE DESCRIPTION:

20 GATCTTCCTC CCATGAAAGA AAAANCAAGA ACCAGAGGCG TAGACTNACT NAAGACACAA 60
 CTCCTGGCTT TCTNAAGCTA TGGACTTGA TTGGATTGCT GGGGGTTTT AGAGAAAGGT 120
 GACAAATTC AGTACCTCTG GCATGCTGTC CCAGGAACT AGGGTCCCA CTAACCTATG 180
 AGGTTTTTAA ACACATTGAA AATGACATGA CACCTAAAT AAATTTGGAT TTGCTCATAA 240
 A 241

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SEQ ID NO:3969

SEQUENCE LENGTH:240

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04694

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SEQUENCE DESCRIPTION:

35 GATCAAGGGT AAGAATAAGT ATCCACCTCT TTCCTTTTAA AAATTTTCCC TCAGAGTCCC 60
 TATGTTGCAT ATTTNATTCT GTTCAGAATC TAACCTTTCC CTAAGGCTTA TCTTTCTAAC 120
 AGATACTAAT TATGAATGGG CATCAACAAC TCTAATTAAA CCATTCTTTA AAACCTCTCT 180
 GGGTGTTTTC ACAAAGAAA TTCTCCCATG TTATGATGTG TGTGGTTGCT AAAAAGTAAA 240

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SEQ ID NO:3970

SEQUENCE LENGTH:238

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS04695

SEQUENCE DESCRIPTION:

45 GATCCAGACT GGCCAGATT GAACTCCAGC ACTATTCCTT GATACCTCTG AAACCTGGGA 60
 CAAGTAACTT AGTCACTATG TATGAAAAGA GATAATAATA CTAGTACCTT CCTCATACTA 120
 CAAGACTACA AGATGTGGTC AAGACCAGAA ATATATAAGC ACTGTAAAA CAATGTAAAA 180
 CCAAATGNAA ATTCTTCATT TGTATCTNCC AAAAATAAAA AAATAGCTAT TTGGGAAA 238

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SEQ ID NO:3971

SEQUENCE LENGTH:238

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS04696

SEQUENCE DESCRIPTION:

5 GATCAACCAG AAAAAAAAAA TATNATGAAA TGGATACACA CAGTGGACAC CTGTGAAGTT 60
 ATCTTAGCTC CCCCCAAACT GAGANGTACA AATTAGTCTC CAAACCTAAT TACCAGTTTA 120
 CAGGAAACAT NGGGAATAAA AGANCAANTT AACAACACAA AGAAGCAAAC ANCCAANTGC 180
 ACAGTTTGGG AAATTCTGCA GAGGTAATGG CCTAGTTTTT TANCCAGTAC ATGTCAAA 238

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SEQ ID NO:3972

SEQUENCE LENGTH:237

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04697

SEQUENCE DESCRIPTION:

20 GATCATAAAT GACAGGTGTG TGGAGGTCAT TGCAAAGGAA GGACAAAACC TGAAAGAGCT 60
 ATATTNGGTG TCCTGTAAAA TCACAGATTA TGGTAGGTAA TGANCCATTT NCCTAATCCT 120
 TTCTAAGANT AAAANGTTAC AAAATCATTG AAAGTNCTTA AAAGGAAATC AAGANCTATA 180
 TCATAGAGAC TGTCTATCGT CACTTATGCT CATNGTGACC NTACCAAANA NTAAAAAN 237

SEQ ID NO:3973

SEQUENCE LENGTH:236

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04698

SEQUENCE DESCRIPTION:

30 GATCGTAGAA GCCAAATGAA ATGTGACATA TCTACTGACT GATGACAAGG GAATTCATT 60
 AGGAAGAAGG TAAAGAAACA TCGTTGAGTA GCCTACCTTG ATTTCTGTCA AGTTCATAAC 120
 CAGCTTCATN CTTTAAAGG CTTCAGGTTT GAAATTAAGT CAACTGCATG CAGCTTTGCT 180
 GATAAATGAA TAATTCTCTT TGATGCCATT TATGAGAAAA GACTTCAATA TCTGTN 236

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SEQ ID NO:3974

SEQUENCE LENGTH:173

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04699

SEQUENCE DESCRIPTION:

GATCTTCCAG TTTAGGAGCA ATTTGGTGAA AGGAGTCGGG TGACCAGAGC TGGGAATAACC 60
 GTCTGCATGG CTGCACTCTG GTANCAGAGT GGNGACAGAN GTAAGGATAG TGTGGAGGGC 120
 ACAGTTGCAA GTTGAGTCTT TCCATGAGAC AATGTGCCAA AGTTAAAAA AAN 173

SEQ ID NO:3975

SEQUENCE LENGTH:234

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04700

SEQUENCE DESCRIPTION:

GATCCCTAAA TAAGTAGTTA TTCTGTTTTT CCTGATTTT AACTTTTACT AATAGAATGA 60
 GAGTAAATAT TTTTGGGTAT GTGGCTTCTT TTGTTCAACA TTGTTTAAAG ATTCATCCGT 120
 GTTGCTTGTG TAGCTGTAAT TTGTTTAAAT CTTTATAGTA CATTGAGTTT TGTNAATGCT 180
 TATTGTAGGA CTGTACCATA ATACAGGCAG CATGCTGCTG ATAAACACTG GAAA 234

SEQ ID NO:3976

SEQUENCE LENGTH:234

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04701

SEQUENCE DESCRIPTION:

GATCCTCCTG CCTCGGTCTC CCAAAGTNCT GGGATTGCAG GTCTTGGTCT TGATNCCAAG 60
 TTTGGGAAAG NAGCTAAGAA GACATCCAC TAGGAAGAGA GAGACTACCT CCACATCAAA 120
 AATATTTAAG TNATTATCTC AAACAGTGAC ATCTCTTGGG AAAATGGACT TAATAGGAAT 180
 ATGGGACTGA GTTCCAGTCT TTTTNAATAA AATAAAATCA AGCAANATCA TAAA 234

SEQ ID NO:3977

SEQUENCE LENGTH:234

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04702

SEQUENCE DESCRIPTION:

GATCAACCCC GTGAAGGTGG CCAACCTGGT GAAGGCGTAC GTGGACAAGT ACAGGCACAT 60
 ANCNCAGGCA CANGAAACCA GAGGCCGGGG AGGAGCCGCC CACGCAGGGG GCCGAGGGCT 120
 GAGGCCAGGC AATCAGGGG TATGCCNGGG AGCTGTCGGG AGTGGCGGGA ATCGGGGCCA 180
 TGCCCGGGGA GCTGTCGGGA GTNGCGGGAA TNGGGGCCAT GCCCGGNGGA GCTN 234

SEQ ID NO:3978

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04703

SEQUENCE DESCRIPTION:

GATCATCGCA TTGAAATGGT TTTGGGAAGT ATGGAAAATT AAATGGATTT TTGAGACACT 60
AGTTTATTGG CTATGCAAGT GACAGTTTGG AAAAAGGCTG AATCTTATTG TTGGAGCCTA 120
ATGTAAATGC ATATATAAAT TCTGACTGTA TTTCAGTCAG TGTTCCTTG GAAAAATTCC 180
CAGATTGGAA GCAGAAAGTA CAGACCAAAT AAAGATTATT CACCCACCAA A 231

SEQ ID NO:3979

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04704

SEQUENCE DESCRIPTION:

GATCGCTCTC ACTGGCCTGC TGCAGATNAG CCAGGGGGAG CCTAGGCCCA GCTCCTCCGC 60
GGTTGGCCCC CCAGACCATA CCTCTGACCC ACCCAGCCCC CNNTGGTAGC CCCAGCAGTT 120
CTCAGGGTGC TGACCTCTCT CTCCCACAGA CCCCAGACAC CCATTGTCCA TAGCCTTCTN 180
AGGGCAGAGT GGGCTGGTTG TGTGACAAT AAAACAGTGT TGGTTTGCAA A 231

SEQ ID NO:3980

SEQUENCE LENGTH:242

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04705

SEQUENCE DESCRIPTION:

GATCAAGTCT TGTCAAGTTC TGCCCTCTTT CCCCATGTTT CCTGGGAAGA CGGGTGGTGG 60
CAGAGTGAGA AGGCCACTGG TTCTGTGCCG CAGCACGCAA AATTTAGAAT TCTACAGACT 120
AGCTCTATAC GTAGTGAGGA CCCAGATTTA GAGAACTGA CCAATATTTA TCTCCGCATT 180
TGTGTGTGTG TCCAACCTCTG TAGGNAATA AACCANCAAG ACAAATGAAC TGTGCTTCCA 240
AA 242

SEQ ID NO:3981

SEQUENCE LENGTH:230

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04706

SEQUENCE DESCRIPTION:

GATCCACCTC TACACCAGCC CAGGAAGCCC CATCTGTGCC TGCCCTCAGG TGGTCCACCA 60
GTCTCCCCCT TTGGTTCCCT TCCAGTCTNT TCCCCCTTC TATCCCAATN ACCAATAGAA 120
ATGCTAACAT CCCTGCCTGG TAGCCAGACT AGCCCACTAA AGCTCCCTG TAAATGGGGG 180
CTCCATTAGT TCTGCTGCCG AGACTAATAA ACGATTGGT TGGCTCTAAA 230

SEQ ID NO:3982

SEQUENCE LENGTH:229

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04707

SEQUENCE DESCRIPTION:

GATCTATTCC CACATGANGT GCGCCACCGA CACGNAGAAC GTCAAATTTT TTTTCGACGC 60
 TGTACCCGAC ATCATCATCA AGGAGAACCT CAAAGACTGT GGCCTCTTNT NAGGCAGGGC 120
 CTGTNCTGCA GTCGGGGACA AGGAGCTTCC NTTTGGCAAG GCCGGGGCAC AATTGCACT 180
 CCCCTCAGCT AGACGCACAG ACTCAGCAAT AAACCTTTGC ATCAGGAAA 229

SEQ ID NO:3983

SEQUENCE LENGTH:226

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04708

SEQUENCE DESCRIPTION:

GATCTCCCT GCCCAAGTCT TACTTCGTGA GCTGGCCTTG CTCCCCATCC CCCAAGTGCC 60
 TCACCACTCC CCCAGACTGG GTGAAGGTAC AGCTGGCTCC TTTCGGGGGT GCAGCTTCAA 120
 CTCTCTCGGC GGTAGGGCGG TGCCATCCCC ACCCATAGGG CTGGCTCACA TCCAGTCACT 180
 CCCAACACGC TCCANCACAC AAATAAAGA CCCTTTGGCC CTGAAA 226

SEQ ID NO:3984

SEQUENCE LENGTH:226

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04709

SEQUENCE DESCRIPTION:

GATCACTTGN GGTCAAGCGT NCGAGACCAN TCTGGTCAAC ATGGCAAAAC CCCGTCTCTG 60
 CTAATAATGC AAAAATCAGC TGGGTGTAGT GGTGCGTNCC TGTAATCCCA GCTACTGGGA 120
 GCTGAGGCGA AAGAATTGCT TGAACCTGGA AGGTGGTAGG CTGCAGTNAG CCAGGATTGT 180
 GCCACTTCAC TCCAGCCCCG GCAACAGNGC AAGACTCTGT GTCAAA 226

SEQ ID NO:3985

SEQUENCE LENGTH:225

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04710

SEQUENCE DESCRIPTION:

GATCCTGGGC CAAACTGATT TACTATTTTA AATTTNAGTT TTAATGNGAC AGGGCCTTGC 60
 TATGTTGCAG GGTGGTGTG AACTCCTGGC CTCAAGCAAT CCTCTTGCT CAGCTTGCCA 120
 AAATGCTGGC ATTACAGGCC TGAGCCACTG CCCCTGGTCT GATTTACAAT TTTNAATTGA 180
 GGGTTAGGGA GTCATAATAC CANCAAAGAT GGTAAGGA ATTTN 225

SEQ ID NO:3986

SEQUENCE LENGTH:221

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04711

SEQUENCE DESCRIPTION:

GATCATCCTC TAAACATTTT ATCATTTATT AATCCTCCCT GCCTGTGTCT ATTATTATAT 60
TCATATCTCT ACGCTGCAAA ATTTGGGTCT CAATTTTAC TGTGCCTTG TTTTACTAG 120
TGTCTGTGTG TGCAAAAAGA AGAAAACATT CTCTGCCTGA GTTTTAATT TTGTCCAAAG 180
TTAATTTTAA TCTATACAAT TAAAACCTTT TGCCTATCAA A 221

SEQ ID NO:3987

SEQUENCE LENGTH:221

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04712

SEQUENCE DESCRIPTION:

GATCATCATC TGTGAAGCAT CATGGTAGCT TCCAAGCATT TCGGCCCCAC TGGCCAGNTG 60
CATCCAAAAC ACATTCAGGA AACCCGAGAG TTGTAAGTTG CACATGTGTG GCCTACAGTG 120
ACTTCCATGT AGTAACAGGG NTGNGCAAGG CANGNTCTCC ACCAGACTTA AAGCATTCAA 180
CCACTCTGCC CCCAGGGCGA CACTGGNCAT GTGGTTCAAT N 221

SEQ ID NO:3988

SEQUENCE LENGTH:220

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04713

SEQUENCE DESCRIPTION:

GATCTTTTAA AGATNNNAAT AAAGAGCTTT CCTAAATAAA ATAAGCAATA TTAACTTTA 60
GAAACTGTAC TCTATGAAAC GTGTTTATG AAANCATCTN TTACAAAAAG TGCTTACTTA 120
ACTCAGCAAG AAAGGTTTAA TGTACACATT TNACANCTAA ANTCAAAACC TACAAGAAAC 180
TGCACTGCCT TCACTATTAA CAAATCGGCC TACAAGGAAA 220

SEQ ID NO:3989

SEQUENCE LENGTH:218

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04714

SEQUENCE DESCRIPTION:

GATCTGGCTA TCTCATTGAT TATATTTTTC TTCCCTTATA CTGCAAAGTA CATCATAGGT 60
ATAATTTTAT TTTGAGAAAG AACTATATTC CAATTTTACC TATATATTCC TACTGTAATA 120
ACCAAGAGGA CATTTCAAAA ATGTATATGC TACTATTTTC AGAAGGNTAT AGATACTAAA 180
TCTTTTAAAG CCTTATTAAA CTATGTTTAA TATTGAAA 218

SEQ ID NO:3990

SEQUENCE LENGTH:217

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04715

SEQUENCE DESCRIPTION:

5 GATCTGTAA ATTTGATTTT ACATGTACAT TTGAATGCCA GAATTTCTAA ATAAATCCCC 60
 TGGTTAGGAA ATTTTAAAG TCAAAGCTTG TTTCTTCAA CCACTACCTT CTACATTGGT 120
 TGACTTAGAC CGTAAGCTTT TTAAGTTTCT CATTGTAATT TACCTTCTCA TGCAGATTGC 180
 TGATGTTTTA TTAAACCTTA TTTTACAAA AATGAAA 217

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SEQ ID NO:3991

SEQUENCE LENGTH:281

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04716

SEQUENCE DESCRIPTION:

20 GATCTTATTA GACTCATACA TCTAATTATA GAAATACATA GACTTGATAG AATTNATTT 60
 TCAGGCNTGA AGAAATATTC TTTGGAAAAG CTAAATTTT GGTGATTGAC ATAAAGATTT 120
 ACTNGCTCAT ATTANCTNGG GGGGNTAGTA CTCTCCAAGA ATTAATGTGC CCTAAAAATT 180
 TTCCTCCAAA ANCTTATCCT TATCATGTGA TAATGANGAN CATTGATTT CTTGAAAGGA 240
 GACTGCTGTA GGCAGCATCT GCGAATGCAA NTNNGGGGNN N 281

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SEQ ID NO:3992

SEQUENCE LENGTH:217

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04717

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SEQUENCE DESCRIPTION:

35 GATCAGCCTG GGCAACATAG CCATAGTGAG ACACCAACTC TCTACAACAG CAAAACAAAA 60
 CAAAACAAAA AAACATGCAG CTGGGCATGG TGGTNACACC TGTGGTCCTA GCTACTCAGG 120
 AGGCTGAGGT GGGAGGATTG CTGGAGCTAG GATGTCAAGN TTAGTGANCG TATTCGACCA 180
 CTNACTCAGC TGGNAACAGA NGAGCCTGT CTAGAAA 217

35

SEQ ID NO:3993

SEQUENCE LENGTH:216

SEQUENCE TYPE:nucleic acid

40

TOPOLOGY:linear

CLONE:HUMGS04718

SEQUENCE DESCRIPTION:

45 GATCATTTTT TGAGGCAGGA GCATAACACC TTCTCTAGGA TTTGTCAGCT TCTAAAAAGA 60
 GCCTTTTGTA AGGACTTGTA TGAGCTTGGG TTTCACCATC ATTACTGGGG AGGCACTAAG 120
 ACTGCACATA TCTCTGGGTG AAGTAATGTC TACACANCAC CTTTCATAGC AATAGTTCCC 180
 AGCTAGCATA CCTGCTTCTG CCAGTCCAGG GCCAAA 216

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SEQ ID NO:3994

SEQUENCE LENGTH:220

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS04719

SEQUENCE DESCRIPTION:

5 GATCCAGACT ATAATCCTGC TGACCCAGAG AGTGACTCAG CTGACTAATG GACTGTCCCC 60
 ATCTGCAGAG AGGCTTGACT GCCACAGCAT CTGTGGCTAT GCTCAGAGGG TTATGATTTT 120
 CCTTTCTTTT NNNTAAGAAA AAATTATTTT CAGGAGAATA TTCTTCTGAT AGCTTTCATC 180
 ATTGAACCTA ATAACTGAC CTAAAAATTT CAAATATAAA 220

10

SEQ ID NO:3995

SEQUENCE LENGTH:215

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS04720

SEQUENCE DESCRIPTION:

GATCTAAGGA AGAACTTGCT GCTGCAGTAT TGAAACTGTG AAGAACTGAC ATTTGAAGAA 60
 AAATAGATTA CCGTTGCGGG ACTAGAATGG GCGACTGCTT GGAGCCAGTG CTTGTTTTTA 120
 20 TCTAGGACAC TTACTGTCCT GTGAAGTAGA ATACATTTAT CTGCATTTAG TTTGTTAATG 180
 TCTGAAATGA ATAAAAAGAG GAAATTGCGA TTAAA 215

SEQ ID NO:3996

SEQUENCE LENGTH:214

25

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04721

SEQUENCE DESCRIPTION:

30 GATCCAGAGA CAGAGGCAGC CTGTCTTTTC AGTTGGTTTC TGCTTTTAAT TTACTTGTAC 60
 AATTCATTGT TACTGTTCTG TTTTTCCTAT TAATCTTTTG TCAACTTCCT GATTATGTAA 120
 CAAAGTATGT ACAGTCTACT TTTGACCTAT TTTTATCACA GTATNATTNA TTNCTTCTTT 180
 CAATAAAGTA CTNGNGCATA TTTCCACTGC CAAA 214

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SEQ ID NO:3997

SEQUENCE LENGTH:214

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04722

SEQUENCE DESCRIPTION:

GATCCGNAGT TCAAGGGAAG AGGAAGTTGC CTCNAGCTC CATCTCTCTG CGCTGCTAGA 60
 CATGGTGGAC ATTTGAGCAG CCTGACCTGT GGGGAGGGGG TCTCTCCCGA AGAGTTTCTG 120
 45 TTTTACTCA AAATAATGTT ATTCTCAGAT GCTTGATGCA CTGTTGGAAA NGGGGATTAA 180
 TTTAATCATG CAGATAAACC ATTTAAATGT CAAA 214

SEQ ID NO:3998

SEQUENCE LENGTH:212

50

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04723

SEQUENCE DESCRIPTION:

GATCGAAACC AGCCTGGTCA ACATGGTAAA ACACTGTCCC TACTAAAAAT ACAGAAATNA 60
 GCCAGCAATA CAAAAATTGG CAGCTGTAGT CCCAACTACT TGGNAGGCTG AAGCACAAGA 120
 ATCGCTTGAN CCCAGGAGGT GGGAGGTTGC AGTGAGCTGA GATTGCGCCA CTGCACTCCA 180
 GCCTGGGCGA CAAAGCGAGA CTCTGTCTCA AA 212

SEQ ID NO:3999

SEQUENCE LENGTH:211

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04724

SEQUENCE DESCRIPTION:

GATCTCAGNA ATTGGAAAAA TTGTCCTGTC TGTCACCTGT TTTGTTGCCT TAATAAGCAT 60
 CTGAATGTTT GGTGTGGGG CGGGTTCTGA AGCGATGAGA GAAATGCCCG TATTAGGAGG 120
 ATTACTTGAG CCCTGGAGGT CAAAGCTGAG GTGAGCCATG ATTACTCCAC TGCACTCCAG 180
 CCTGGGCAAC AGAGCCAGGC CCTGTATCAA A 211

SEQ ID NO:4000

SEQUENCE LENGTH:210

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04725

SEQUENCE DESCRIPTION:

GATCAAGGCT ATGAACATCT TGTGAAGTAG GATGTTAAGT CTGCAATAT CAGAGTGAAT 60
 CCAAACTTAT CAATCAACA CTGGATTGTA AAACAGCTCA AAAAAAGACT AAAACACAG 120
 CTCTACACTT TAGGAGGTTG GGGCAGGCAG ATTGCTCGAG CTCAGGAGTG GGAGACAAGT 180
 TTAGGAAACA TGGAAAAACC CTGTCTCAAA 210

SEQ ID NO:4001

SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04728

SEQUENCE DESCRIPTION:

GATCAGCATT CATACCATAG TAACTGATGT TGAAAACAGC ACAAATAAAC CAGAAGTTGA 60
 AAATGGCAAT AACATGCTAA AAATTTGCAA GTCAATTTGA NNACACTTGT CCAAATCTTG 120
 ATTTTTTTC CTTCTCTATC GTTCCCCCCC CACCACCAGC TTTATGGAGG TATAATTAGC 180
 AAATAAAAAG TATACATATT TAAGGTAAA 209

SEQ ID NO:4002

SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04729

SEQUENCE DESCRIPTION:

GATCCTATGA ATTAATTCAG AAAGCAACTA AAATAACAAT GGCCTGCCAA ATGTCATTTT 60
 GTAAATATAC GTCTATGACT TTAGGAGCTG TCCTGGTTTG AAAACATGAG GACAGTTTAT 120
 CCATTGGATG CCATCTATNT AGTCCCAATT AAGAAAGTTG TTTTTTTGTG AGAATGACCA 180
 AGGTAAATTT AAATATACCA TTCAAACAN 209

SEQ ID NO:4003

SEQUENCE LENGTH:208

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04730

SEQUENCE DESCRIPTION:

GATCGATGAA GCACTTTTT ATTAATATTT TCCTTTGTTA AAGGAGGAAC CGTAACTCTC 60
 CATAGCTGTA CATATAACCC TTTTCTCCTA AAGAGGAGTC AGTCAGTGCT CCTATATTTT 120
 TCATTTTTTG TCAAAGCAAG AAGTAAATAC TTTAGAATTG TTAATATAT AAATAAGCA 180
 AATAAAGTTG AGTGTTCCAC ATGGTAAA 208

SEQ ID NO:4004

SEQUENCE LENGTH:207

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04732

SEQUENCE DESCRIPTION:

GATCTTTCCA CATACACTAC ATTGTATTGT TCAAAATTCA TAGAAATNAC TTGCAATATA 60
 TTGATTTAAG CCTTATGTAG TGACTGTTGC TATATTAAA GTAGCATTTT NAGTTTGCTG 120
 TTTTCTCTCA CTGCTTAATC CTACAAAAAC CAGCCATCTG CCTAAAAAAT AAAAGAGCAA 180
 AANTGNATCA GTGCAACCGG TATACGN 207

SEQ ID NO:4005

SEQUENCE LENGTH:207

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04733

SEQUENCE DESCRIPTION:

GATCCACATC TCAAAGAAGT GGGACTTCAC CAAGGTNCAA TGCTGATGAA TTTGAACNCA 60
 TGGTGGCTGA AAAGGGGCTC ATCCCANGAT GGCTGTGGGG CAAGTCATCC CAGTCGTGGC 120
 CTATGGCAAG TNNNGGCCCT NACTCATGAG GGCTTCAATG TGCTGCCCCC TCTTAATACT 180
 CACCAATAAA TTCTACTTCT GTCCAAA 207

SEQ ID NO:4006

SEQUENCE LENGTH:205

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04734

SEQUENCE DESCRIPTION:

5 GATCTACATT ATTACAGCAGC CTCGAAAATG TTAAGCCTGG ATTTAAAACA CAGCCGTCTG 60
 GCCAGCTGCC TCGAATATCT GACAGCTTAG CAAAAAGGGC CANAGCTTTC CATAGGCGTG 120
 CTGCACTTGC TTGGTAAATT AAGCAGCTTT TGTATCTTCC CCTTTGACTT TAGGTAATAA 180
 AGCATCCAAA CTTGTAAATC TGAAA 205

10 SEQ ID NO:4007
 SEQUENCE LENGTH:204
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04735
 SEQUENCE DESCRIPTION:
 15 GATCTGGGAT AAAACCAGAC TGAAAGGAAT ACCTCAGAAG AGATGCTTCA TTGAGTGTTT 60
 ATTAAACCAC ACATGTATTT TGTATTTATT TTACATTAA ATTCCCACAG CAAATAGAAA 120
 ATAATTTATC ATACTGTAC AATTAAGTGA AGAATTGATA ATAACTGAAT GTGAAACATC 180
 AATAAAGACC ACTTAATGCA CAAA 204

20 SEQ ID NO:4008
 SEQUENCE LENGTH:203
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS04736
 SEQUENCE DESCRIPTION:
 GATCTNCTTT TTATCACTAT AGTTTGATT CCTAGAATTG TATATAAATG GAATCCAACG 60
 GGCACAGTGA CACATGCCTG TAGTCCAGC TACTTGAGAG GCTGAGGTGG GAGGATTCCT 120
 TCAGCCCACT TCAAGGCTGC AATGAGCTAT GACCACGCCT ATGCACTNCA GCCTGGGCAA 180
 30 TATAACAAGA CCCTATATCT AAA 203

35 SEQ ID NO:4009
 SEQUENCE LENGTH:202
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04737
 SEQUENCE DESCRIPTION:
 40 GATCTGAAAA GAATTTNTAT TTAATTGGG TTGAGGGAGA GTAGATACAA TGAAACCTTA 60
 AATTTAGCT TTNATTCTAA ACCCTTAAAT TTTTATGGG TTATGTTTA CTTGGCAAAA 120
 CTATCTGTGT TTCTNTCTTA GTGATATAGC ACCCTTAAAG TAACTTGAGT GGTAAGGAA 180
 ATAAAAATACA CCAGTTTCA AA 202

45 SEQ ID NO:4010
 SEQUENCE LENGTH:201
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 50 CLONE:HUMGS04738
 SEQUENCE DESCRIPTION:
 GATCCTCTTC CTGCTCCAGT TGCTGGCCGA CCACGTCCTT GCGTTGGCC TGGTCACAAG 60

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GCCGCTCATG GATTACTTGC CCACCTGGCA GAAAATCTAC TTCTACAGTT GGGGCTGACA 120
 GACCTCCCGG AAGGAGGGTG TGGGGAGGGG TGGGGCAGGG AGCCCCCTCTT CCCTAATAAA 180
 ACTGACTCCG GCAGCGTCAA A 201

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SEQ ID NO:4011
 SEQUENCE LENGTH:201
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04739

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SEQUENCE DESCRIPTION:
 GATCCTATTT GTACAAAAAA ATGTAAACT TAAAATTGCA CAAAATTTGT NACCTGTACC 60
 AGCTTTTAGA ACTGTTTATC TTATCCTCCT CAGTGATACA TCATGAAGTT GTGTGCTTTG 120
 CCTAAATGC CCAGTTACCT GAAATTGTAT AAATNCTTGC CAAAAGTGTT TGAACCTAAT 180
 ACAAACCTCC CATCTCTTAA A 201

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SEQ ID NO:4012
 SEQUENCE LENGTH:201
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04740

20

SEQUENCE DESCRIPTION:
 GATCTCATTT TATTTAGCAT CAGCTCAAGA AACTNAAGTC TTAGTGACA GTATCACAAC 60
 AAAGAAAAAG CTTTGT TTTT ATAAGTGGTA AAAACAAGAA AAGATTCTCA TCAAAATGAA 120
 AATATAAAAT TAATCATTTT TCACCAAAGA GTATGCCTGG GAGCCTCCAG CTGTAAAAAG 180
 NCAATGCTAT TACTACTTCT N 201

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SEQ ID NO:4013
 SEQUENCE LENGTH:200
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04741

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SEQUENCE DESCRIPTION:
 GATCCAAGTT GCCCTTGGGG TATAAACTT GACAGCAGAG GGCCTTCAGG GTCCTCAGC 60
 TGCAGTGTGA AGTGGGACAC ACAGGTGAGA CTCCATCTGC CCTGGGCAGG TTCCTGAGCC 120
 TTNGGGGACC AGTTCACCCT ACATCCCAGG CTTCTGTTGT CCCTTGCCTG CCTGTAAGGA 180
 ATAAAGTTGC TTGCTTAAA 200

40

SEQ ID NO:4014
 SEQUENCE LENGTH:200
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04742

45

SEQUENCE DESCRIPTION:
 GATCTGACCT TTTCTCAGA TACATAAGCA TTATTTTCTC TGTTTAGGTC CAAGGAAAAA 60
 CAAAAGGTAA AGGNAATAAA GGGAATATAC ATAAGGCAAA CATTTCTCTT TTTTTTTTGC 120

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ATTATATCTT ACCAATTAAT TAAATTGTGG CCTTTGTTAT TATAAATGTA ATGATTCATT 180
AAACTATATT ATGTAATAAA 200

5 SEQ ID NO:4015
SEQUENCE LENGTH:200
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS04743

SEQUENCE DESCRIPTION:
GATCCTATGA CTGACATCAA CTAAAATTTA AAAGAAGAGG AAGACTCAGT TGGGAAATTT 60
TNCCATGAGG AAAATGTGCT TTGGTGCAAG GTACAAGGCC CACACCCTCT CTGAGAGATA 120
CTATGATTAA AAAAGCTTTA TATCTTGGGA TTTTNCACAA CTGATAATGT GCAAAGNTAT 180
15 AACNGATTA ACTTGTCAAA 200

SEQ ID NO:4016
SEQUENCE LENGTH:200
20 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04744

SEQUENCE DESCRIPTION:
GATCTTTCAA GAATGAACCA AGGNTTTTTA AAAGAATTAT AGGAAACACT TCATTCTTTA 60
25 TAAAACTTTC TATAATGCCT TATTGGAATG TTAATCTTAT GTGCTTTCTA AAAAAATGTTG 120
TGAAATACCA AACTTATGGA TTATCACTAG GTTATCAAGC ATATATNAGT CTTTATCAGA 180
NTAAAATGAA ATTNCATAAA 200

30 SEQ ID NO:4017
SEQUENCE LENGTH:199
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04745

35 SEQUENCE DESCRIPTION:
GATCTGAGAG GCAGTAAAGC AGTGATGAAG ACAGTGCAGC AGAACATTGA AGTCCTGATT 60
GCAGCAGTGA CTCTGCAACC TTGGATAAAT TATTTCANTC TTTATTTTGT AAAACGGAGA 120
TAACGGCCTA TAGGATTNTN AAGACTGANT ATTTTAAAAG NGCTTAGAAT GGTGCCTGAC 180
40 AAATGAGNNN CANTAAATN 199

SEQ ID NO:4018
SEQUENCE LENGTH:199
45 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04746

SEQUENCE DESCRIPTION:
GATCATGTGA TTTCTATTTC TNCCCCACAG GGTAAGGGAC GAGTCTTCTG GAAGGCTCTG 60
50 CCATGGACAT TTGTCTCGG GCTCAGAGGC CCCACCCTGC CCCACACCTG CCCCTAATCA 120
CTGCAGTGTG CAGCCCAGTG TTGAACAGAT TGTAGCGTTC TGTCTCATTG CGAGCAAATA 180

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AATAGACTTT CATTGGAAA

199

SEQ ID NO:4019

SEQUENCE LENGTH:198

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04747

SEQUENCE DESCRIPTION:

GATCACGCGG CATGTATTGA GGTGTGGCAT GCAGCATTTT GGAAGGAAAA TTGAAGACGT 60
 GTTCAAGAAA ACATGAACAG AAGCAAATNA TGAAAATGAG CATTTTACTT GATGTTGATA 120
 ACATCACAAT AAATTATGGA GAAAAATACA TATTGGCTA ACTTTTAATT GCTGANCAAT 180
 AAAAGTGTTC CTTTAAA 198

SEQ ID NO:4020

SEQUENCE LENGTH:196

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04748

SEQUENCE DESCRIPTION:

GATCCCTACC GCCAGCTGCG AGAGAAGGAC CCCAAGTACA GTGCTCTCCG CCAGAATTC 60
 TTCCGCTACC ATGGGCTGTC CTCTCTTTC AATCTGGGCT GCGTCCTGAG CAATGGGCTC 120
 TGTCTCNCTG GCCTTGCCCT GGAAATAAGG AGCCTCTAGC ATGGGCCCTG CATGCTAATA 180
 AATGCTTCTT CAGAAA 196

SEQ ID NO:4021

SEQUENCE LENGTH:196

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04750

SEQUENCE DESCRIPTION:

GATCATGAAG AAGCAGGGCC TCTACCTACA AAAGTNAATC TTGCTCATTG TGAAATTTAA 60
 GCATTTTCT TTTAAAGAC AAGTGAATA GACATCTAAA ATTCCACTCC TCATAGAGCT 120
 TTTAAATGG TTTATTGGA TATAGGCCTT AAGAAATCAC TATAAAATGC AAATAAAGTT 180
 ACTCAAATCT GTGAAA 196

SEQ ID NO:4022

SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04751

SEQUENCE DESCRIPTION:

GATCTGGTTC CAGGGGAAAA AAATAGCTGG TTGGTGTCTA GCCCCCAAC ACTTTTGTCT 60
 GTTGTGTATA AAAGAAGAAA GACTGGCATG TACCTTCATT TGCTTAGCTA TTTGAGTATC 120
 TAGAGAAAAA TTTAAATGCA ATGAGTTAGC AGTATACCCT GGCACACTTA ATAAATTAAA 180
 CATTTGTGGA GCAA 195

SEQ ID NO:4023

SEQUENCE LENGTH:194

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04752

SEQUENCE DESCRIPTION:

GATCTAGAAG CTGGTAAAAA TGACAATATC AATCACATTA GGGGAACCAT TGTGTCTTC 60
 ACTTAATCCA TTTAGCACTA TTTAAAATAA GCACACCAAG TTATATGACT AATATAACTT 120
 GAAAAATTTT TATACTGAGG GGTGGTGAT AACTCTTGAG GATGTAATGC ATTANTAAAA 180
 ATCAACTCAT CAAA 194

SEQ ID NO:4024

SEQUENCE LENGTH:193

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04753

SEQUENCE DESCRIPTION:

GATCCAACAG CAACACCATT TTAAATTAT TGTGAAAAGA TTAAGTGGCA ATGTACAGAG 60
 TTTACTCAAA GCCCTTCTTA AGGGAAAACA CTACAAAAAG TCACAAGGAT ACCAAATGGA 120
 AACACATGAT GATGCCTCTG GGTCTGTATG AGACCGTGAT GAAGTAGAAA TAAAGCCCTT 180
 CTGAGATGGC AAA 193

SEQ ID NO:4025

SEQUENCE LENGTH:191

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04754

SEQUENCE DESCRIPTION:

GATCCACGGT GGGCTCCAGC TGCCAAGNCA CCCAAGGGAG TCTGGGCCCT AGGCCTAGCC 60
 CCATCCCTCC CCATGAGGGG CCAAGACACT GCCTAAGGTG TGGGAGGGAC TGGCTGAGAT 120
 TGCAGCCCAT GGTAGGAGCT GGACCAACTG TATATAGTTT TCAATAAACT TTTTCCTTTT 180
 CTGTTCTCAA A 191

SEQ ID NO:4026

SEQUENCE LENGTH:264

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04755

SEQUENCE DESCRIPTION:

GATCCAGGAA GTTGGTGAAC CATCTAAAGA AGAGAAGGCT GTGGCCAAGT ATCTTCGATT 60
 CAACTGTCCA ACAAAGTCCA CCAATATNAT GGGTCACCGG GTTGATTATT TNATTGCTTC 120
 AAAAGCAGTG GACTGTCTNT TGGATTCAAA GTGGGCAAAG GCCAAGAAAG GNGAGGAAGC 180
 TTTATTTACA NCCAGGGAGT CTNTGGTTGA CTAAGCAAC CAGGCTTTTA AAGTAGCAGT 240
 TTNTTTCACC GAGCCCTAAA GGTN 264

SEQ ID NO:4027

SEQUENCE LENGTH:186

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04756

SEQUENCE DESCRIPTION:

GATCTTCACA TATTTTATAT GNATATATAT ATCAAGAAGT TATATATATA TAACTCAAGA 60
 AACTCAAGTT ATATATATAT GTCAAGAAAT GTATGATTAT TTTGGAGAGA ATGGGCCCAA 120
 ATGTGAAAAA GATATAAAAA AAACAAAAAA AACNNAAAAA AAACCNCNTT TTNCCCCTNC 180
 GNANTN 186

SEQ ID NO:4028

SEQUENCE LENGTH:150

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04757

SEQUENCE DESCRIPTION:

GATCTGGAAG TCACCTCCT CTGGCCCACG GAAAATTTTG GTAATCTTCT AGGTTCTAAA 60
 ATGAAGATGT ATGGGTACTC TGGCAGACTG CATGTTGTAT AATTGAAAAA ATACTAAAAG 120
 TGGAAAATAA AATTGAATTA AACTTTGAAA 150

SEQ ID NO:4029

SEQUENCE LENGTH:186

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04758

SEQUENCE DESCRIPTION:

GATCAACAAG TTCAAAACAC TGCTAAGTCT AAATCTAAAA CAGACCAAGA GTACCTTCAT 60
 TTAANTTTAG CTGACACAGA GCTTGATGCC TATCCTNCAT TCTTNCAGA AGTAAAGATA 120
 ATTATGGCAC TTATGCCAAA NTCATTATT TAATAANGTT TTAATTGAGG TAACATTACT 180
 GATTN 186

SEQ ID NO:4030

SEQUENCE LENGTH:183

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04759

SEQUENCE DESCRIPTION:

GATCCAACAC AGAGACAATA GAAACATTGG GATTGAAGAG ATTCTTGGA CTGTAAAAAT 60
 CCAAGAATA TGGGATTGTA AAAACCTGT CATCTTACTG CTATGATAGA TGAAGATTTT 120
 GCTTGCTAT ACCTTGNGC TATCCTCTC TTCCTTCCT CCAAATATAC TTGTAGGTAT 180
 AAA 183

SEQ ID NO:4031

SEQUENCE LENGTH:183

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

5 CLONE:HUMGS04760

SEQUENCE DESCRIPTION:

GATCTAGCAT TTTAATTCT AGCATTGCTA TTCACCGGCT TCCTTATTTT ATATGTAAAA 60
 ATTAAGATTT TATATTTAAT CTTCTTGTTT CTCATAGATA TTTTGTGAGC ATTTTNTTGT 120
 10 TTATTTTGAA GAAATGTGGA TAAGATACTT GGTAGTATAA AACAGNCTCT CTGAGAGTAT 180
 TTN 183

SEQ ID NO:4032

SEQUENCE LENGTH:182

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04761

SEQUENCE DESCRIPTION:

GATCAAGGTC TGTATATTAT CCCAACTTT ATTAAGAATT GTTTCTAAT TNGITATAAC 60
 ATTTTNAAT TAATAGTTTC AAAACAAATT GTTAATACAA CTGTATAAAA TGAACATAAT 120
 20 TTTCCTCACT TGTATTTTGG TTATTGAGCA AGTTTATCAA AATAAATNGT CTAATAAAGA 180
 AA 182

25 SEQ ID NO:4033

SEQUENCE LENGTH:181

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

30 CLONE:HUMGS04762

SEQUENCE DESCRIPTION:

GATCTCTTAT CAATTAGCAC TCACTAATGT ACTACTAATT GAGCAACCTA CGCACTCAGT 60
 TGACTACGTA AATCTGTCAG GTCTTTTGTG ATTCCTCTG ATGCAGGAGA GGAAAAATTG 120
 35 TAATTGATGA AAATAATGAA TGAAAAATCA CAGATGAATA AATGGTTCTT TATAAGTGAA 180
 A 181

SEQ ID NO:4034

SEQUENCE LENGTH:180

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04763

SEQUENCE DESCRIPTION:

GATCTGGAGT CCCACGTTCC CCAAGGCCAG CGGGATGTGT GCCCCTCCTC CTCCTCACTC 60
 ATCTTTCAGG AACACGAGGA TTCTTGCTTT CTGGAAAAGT GTCCCAGCTT AGGGATAAGT 120
 45 GTCTAGCACA GAATGGGGCA CACATTAGGT GCTTAATAAA TGCTGGATGG ATGCAGGAAA 180

50 SEQ ID NO:4035

SEQUENCE LENGTH:180

SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS04764

SEQUENCE DESCRIPTION:

5 GATCCTGTTT GTACAAAGTC TTGCTTTTAT AAGGTTTCAA TAATATCTAA AACAACACAT 60
 TAAAAAGCTG AGACCATTTT ATGAAGATAA TTGTTTGTA TCATAGGTGT TGAAAGTAAA 120
 AAGGTGCCAT CTTGTGGTAT TGACTTGTAT TTATAACAAA TAAACTGCTC AAGAGACAAA 180

10 SEQ ID NO:4036

SEQUENCE LENGTH:180

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04765

15 SEQUENCE DESCRIPTION:

GATCCTGGTT ACAGCCATTT TGTGTGATTC ACTTCGGGGG TTAAGTAATG CAGGATTCTG 60
 CAAACAAGGT GTCGCCGTCC AAATGTACTG TCCTGGCATA GAGAGCACTG CTTTGTTTTC 120
 CACTGTTGTA GAGAAACTA GGGAGAACTT TATTTTCAA TAAACTTTTC TTGTGTGAAA 180

20 SEQ ID NO:4037

SEQUENCE LENGTH:178

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS04766

SEQUENCE DESCRIPTION:

30 GATCATGTAT AAAAAGAAAA AAAAGAAGTC ATGCTNTGTG GCCAATTATA ATTNTTNNCA 60
 AAGACTTTGT CACAAAACCTG TCTATATTAG ACATTTTGGA GGGACCAGGA AATGTAAGAC 120
 ACCAAATCCT CCATCTNTNC AGTGTGCCTG ATGTCACCTN ATGATTGCT GTTACTNN 178

SEQ ID NO:4038

SEQUENCE LENGTH:177

35 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04767

SEQUENCE DESCRIPTION:

40 GATCAGGATT TGGGAAAAAT GTGGTCAATA TTTGATTTTC CTTTCTGTT TGATAGCCTT 60
 ATCTAAATTC CCCTAGCTTG AATGTAGTAA ATATGAGTGT GTAAAAATGT GTATCTAATT 120
 CACCTCTTNG GGGAGGTTTA ATGTAACAT AAATAAAAT TCTTCCCA GGTAAA 177

SEQ ID NO:4039

45 SEQUENCE LENGTH:175

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04768

SEQUENCE DESCRIPTION:

50 GATCTTACCT CCTAACCAAC TCCATACATC ATGACCAATG GCTCAGTCCA AGCNGTCATC 60
 TCTTGCTTGG TCACTGCAGG TACTTGCTAA CTTTCTTCCC AATAATCCAA CCCCACAGA 120

55

GCAGCCAGAG TAGCCTTTTT TTGTTTGTGTT TTGTTTGTGTT TTGTTTGTGTT TTGTN 175

SEQ ID NO:4040

SEQUENCE LENGTH:175

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04769

SEQUENCE DESCRIPTION:

GATCTTAATA GCTAAAATAT GAAAAATATT TGGNAAGTCT GAAATNAGGT CTCCTGGCCC 60

TGGTGTGCCC TTAATGCCCTG TNACAGTTGG CCTCTGTGAA TATTGGTATA ATTNTAAATA 120

ATGTCAAACCT CCATTTTNTA GCAAGTATTA ATAATTAAGG GAAGTATGTC TGAAA 175

SEQ ID NO:4041

SEQUENCE LENGTH:174

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04770

SEQUENCE DESCRIPTION:

GATCCTCAGG ATATGCAGGG CTCAAGAGAA ATGAAATATC TTGGGGATAT GGTTACTTAA 60

GACGTGATAC TGTACAGTG AATTTACAG AGATGGTGC TGCCCTAACT GAGGTTCAAT 120

CCATGTATAA GCCAGACCAA TCTGAAGACA AATAAAGTAT TTCACAGCCA CAAA 174

SEQ ID NO:4042

SEQUENCE LENGTH:171

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04771

SEQUENCE DESCRIPTION:

GATCTTCAA CATTAACTTA AGCAGACCAA AAATTCTGAT GACCGCATCT AGATTATTTT 60

TTTATAAAAA TGATTTTCAC TATAGCTATG TTACGCTAAG CTA CTGTGCTCA ATCTCTTG 120

ATGTGTAAC TTTACATGTG AATATTAAAG TAGATTTCTC TGTCTTGTA A 171

SEQ ID NO:4043

SEQUENCE LENGTH:170

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04772

SEQUENCE DESCRIPTION:

GATCTTTAAA GATGTGCTAA ATGACTTTTT TGGCCAAAGG CTTAGTTGTG AAAAATATAA 60

TTTTTAAATT ATACATTCAA GGTAGTGGCC AAATGTAACA CATCAATCAT GGAATGATTN 120

CTCTGCTAAC AGCCGNCCTGT ATGTTTCAAT NAATTTGTCC AAAGCTCAAA 170

SEQ ID NO:4044

SEQUENCE LENGTH:169

SEQUENCE TYPE:nucleic acid

EP 0 679 716 A1

TOPOLOGY:linear

CLONE:HUMGS04773

SEQUENCE DESCRIPTION:

5 GATCCTTCCC AGTGGACAGA TGAAGAATTA GGTATCCCTC CTGATGATGA AGACTGAAGN 60
 TGTAGACTCA GCCTCACTCT GTACAAGAGC CAGGTGAGAA TTTCAAGGAT TATCGACTTC 120
 ATATTGCACA TTAAAGTTAC AAATTAAAGT GGCTTGGTCA AGAATGAAA 169

10 SEQ ID NO:4045

SEQUENCE LENGTH:169

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04774

15 SEQUENCE DESCRIPTION:
 GATCTAGTGT GTAGTGAGCT CAGTATAGAG GACAGAGCTT TCATCATGTA AATTNATATG 60
 CAAAGCCAAA TNAACGTGG TGTGTACTTC TACTGATGC GTCAGGGTAT AGGCCTCTTT 120
 TTCTGCCATT CAAATAATGG AAGTTAATTA AATTTTAAAC AAATGTAAA 169

20 SEQ ID NO:4046

SEQUENCE LENGTH:169

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS04775

SEQUENCE DESCRIPTION:

30 GATCCATACT GAAAAAATNC TGAGCCAGCC ATCTTTGGCA AAGNNCCCTG AGCTCTTGCT 60
 ATCTCTCAAG AGTGCTGAGA NCCACGGTGA AAGTNCCTGCT CTAGGCCAC AAGTGTAAT 120
 ATGCTGTAA CAGCTGTCAA TAGATAATTA AAATTCATAC TGTATGAAA 169

35 SEQ ID NO:4047

SEQUENCE LENGTH:168

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04776

SEQUENCE DESCRIPTION:

40 GATCTCTGTT CTNGNTTGAA TGTATTTAAT TTCCAGCAGA ATGAGCCCCA TTCCTTATTT 60
 TGATTGGCCA TTTATCATGT ACATATGGTG AAATGCCTAT TCGTGACTTA GCCAATGTTG 120
 TTTCTTTTTC TTAGTGATTA CTACAGTACA TTTTATATG AAAGCAAA 168

45 SEQ ID NO:4048

SEQUENCE LENGTH:212

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04777

SEQUENCE DESCRIPTION:

50 GATCTGCTGA AGCATCTGTC CAGCTGGTAT CCTGTGAAAG TTTGTAATTT NCTGAGTAGA 60
 CATTCTTATA GAGTATTGTC TTAAAAATCA GATTGTCTCT NCTATATTGA AAGCATTNN 120

55

ATGTTTNCNA ATTTAAAAAT TAATATTTCC TTATAGATAT TGTGCAATAA AGCTGAAAGTA 180
GAATGTGTGG TTTTGGCAA TNCTTTAGCG GN 212

5 SEQ ID NO:4049

SEQUENCE LENGTH:167

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

10 CLONE:HUMGS04778

SEQUENCE DESCRIPTION:

GATCTTGTCT CACAAAATAA ATTAAGAAGA TTTTAAATA GCAGGTTTCT AAAACAATGA 60

GAAAGACAGC ATTACATATC AGTGTCTACA ATTTAAACAA AGCTATACTT AGAAGTAAAT 120

15 TCATTGTCTT AACTGCTTTT GTTCCAATAA AACAAAATAG CAGGAAA 167

SEQ ID NO:4050

SEQUENCE LENGTH:176

SEQUENCE TYPE:nucleic acid

20 TOPOLOGY:linear

CLONE:HUMGS04779

SEQUENCE DESCRIPTION:

GATCGTTACT ATGTGTCAAA GGGTTTGGAG AACATTGATT AAGGAAGCAT NTTCTGATT 60

25 GATGAAAAAA ATAACTCAGT TATGGCCATC TACCCCTGCT AGAAGGTTAC AGTGTATTAT 120

GTAGCATGCA ATGTGTTATG TAGTGCTTAA TAAAAATAAA ATGAAAAAAA TGCAAA 176

SEQ ID NO:4051

SEQUENCE LENGTH:166

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04780

SEQUENCE DESCRIPTION:

35 GATCTATAAC TGACTTTGC CTGGCGCTGT GCGAAGGTCA GAAAACCTTAC TGCTAGTACC 60

TAGAAACACA CAAGGCTGCC CAGCCAAATC TTAATGTAAA GTAGCTAGAG CCATGGAAGT 120

ACAGTATGAA TAAAAAGAA AAANGTATTG ANCTTCAAT TCTAAA 166

SEQ ID NO:4052

40 SEQUENCE LENGTH:163

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04781

45 SEQUENCE DESCRIPTION:

GATCTTGTAAGTAGGAAAGC TGTAACATAA AATTGTATTG TTTGCTTATT AGCCATGTAT 60

CTCTTAAAT TTTGTTATGT TTACAACGAT GTACCTTATT GGCAACAAGT TATTAGTTTG 120

ATGTTTAAACA ATAGTGCCTT TAGTAAATNA TTTTACAAC AAA 163

50 SEQ ID NO:4053

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04782

5

SEQUENCE DESCRIPTION:

GATCCAAAAG CTGGCTNTCT AACCACCAGC CAAGGGCTCT CTTACCACC AAGCCAACTC 60
 TCAGGGCAGC AGCAATGTGT ACCTTATTAA CCTCTGCACC CNAGGTCCTA GCACAGGGCT 120
 NGTCCATAAC AGGCGNCCAA TAAACATGTG TCATAATCTA AA 162

10

SEQ ID NO:4054

SEQUENCE LENGTH:161

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

15

CLONE:HUMGS04783

SEQUENCE DESCRIPTION:

GATCCCTGGT CCTGCCGACA CGCAGCTACT GAGAAGACCA AAAGAGGTGT GTGTNTGTCT 60
 ATGTGTGTGT TTCAGCACTT TGTAATAGC AAGAAGCTGT ACAGATTCTA GTTAATGTTG 120
 TGAATAACAT CAATTAATGT AACTAGTTAA TTACTATGAA A 161

20

SEQ ID NO:4055

SEQUENCE LENGTH:159

SEQUENCE TYPE:nucleic acid

25

TOPOLOGY:linear

CLONE:HUMGS04784

SEQUENCE DESCRIPTION:

GATCGGCACC ACACCAGACA TAATCCTGGA CGACTTGCTG GAGACGGACC GCGTCACCGC 60
 CCACTTCTAG CCCCGTGGAT GCCGTCACCA CCAGCACACG GAACTACCTC CCACCCCTT 120
 TTTGTACAAA ACACAAGGAA AAACATTTTT TGCTTGAAA 159

30

SEQ ID NO:4056

SEQUENCE LENGTH:159

SEQUENCE TYPE:nucleic acid

35

TOPOLOGY:linear

CLONE:HUMGS04785

SEQUENCE DESCRIPTION:

GATCTAATTC TTTTGATAAA GTTCTAGCTC TAAAAGTGAT AGTGGGACTG TATGTTTTCT 60
 GATACTGGTG GCTTATGTTA TTAANCCTTT TTTAAAAAAG GTCCACTCTA AAGGCTGANN 120
 NCCACCCTAN GTTCCAGCC TCCTGGCCTC NACCNGGNN 159

40

SEQ ID NO:4057

SEQUENCE LENGTH:158

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04786

SEQUENCE DESCRIPTION:

GATCTTGTGT TCTTTGTGCC AATATGAAAA GGAGAGGGTT GGTTCCTTCC TTTATTGTTG 60

50

55

AATGCTCCCA TTAAATGCTT TATGGCTTTT ACTGTATTAC TTTTITAGAC TCCCGTCTGC 120
ACAAAATGCA ATAAAAATAA TTTTATTATA CCCTTAAA 158

SEQ ID NO:4058

SEQUENCE LENGTH:158

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04787

SEQUENCE DESCRIPTION:

GATCACACTG GGGAAAAGTG ACAGAACCAA ATTTCAAACCT CCAGTCTTTC TGCTTCTAGA 60
GATTGAACTA CTAACATCTG CATTATATAA AATTAAGTNT CTCAAGGTAG TTTGTGAACG 120
TAACATACAA ATAAGTGATT AAAATTTTNG GTGATAAA 158

SEQ ID NO:4059

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04788

SEQUENCE DESCRIPTION:

GATCCCAAGT GATTAAAATA GGGTTTCTGA ATGGATGTTG AATGGCGTGG ACTCGCTACT 60
CCGTTCTTCA CAGCTGCCTT CCAGAATGTG TTCAAAGAA AGACAAGAAG GAGTGTATGG 120
CTTATAAAGT GAATCTAATA CAGTATTTGT TGCATTAAA CAACTAGAC ATTTTCTTAC 180
GGAAAANTTA TGAATACAG CATATTTNAT GTNCTCCCAT TGACTCAATC ATGACAATAT 240
TTCTGCTTTA ACACCATCTT TCATGATTAG NAATGTTTGT NATTGGAAT GTTACACCAT 300
GTAAATAN 308

SEQ ID NO:4060

SEQUENCE LENGTH:155

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04789

SEQUENCE DESCRIPTION:

GATCAGCCCC AGATTGACG TGCCTCAAA GACCTGAAA AATGGCAGAA TAATCTGCTT 60
CCATCCCGCC AGTTTGGTTT CATTGTACCT GACCACCCTC ACNGGCAANC ATGGACCCAT 120
GAAGNAGCAA NNCGGAAACN CACNAGAGGG AAAAN 155

SEQ ID NO:4061

SEQUENCE LENGTH:155

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04790

SEQUENCE DESCRIPTION:

GATCTCATTG GTATGTTTTT TAATGTGTAG AATTAACACT TAAAAATAAA CAGGTGTGAA 60
AATTATAAAG GAATATATAT GACAATTATT TNCTGTACAT TAATGTCTAA ACATTATACT 120
TACTTTTCCA TAATAAAGGA AATTTTGAA CCAA 155

SEQ ID NO:4062

SEQUENCE LENGTH:155

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04791

SEQUENCE DESCRIPTION:

GATCTTAAAA CCCAAGACAT TATATTTGAA GGGGCACAGC AAACAGTGCA AGAAAATCTG 60
 CTGATGGAAG ATNATTTTNA TCAGTCCTCA GANCCAGAAA CTATAAACT GGAAGGAAA 120
 GTTAAATAA AGANTTTATT TCCAAATTCA GCAA 155

SEQ ID NO:4063

SEQUENCE LENGTH:153

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04792

SEQUENCE DESCRIPTION:

GATCTAAGNA GGATTCAACA CCTTTNTTGT GTTGCTCAGT GTGTAATGAC TGAGATTTGT 60
 AAATCTTGT GAACATTCTG TACTGGTTCC CAAGAGCTAT TCATTCCCTG CTACCTGATT 120
 TCAGCACAAT AAATATACTT CTGCTGTGGG AAA 153

SEQ ID NO:4064

SEQUENCE LENGTH:152

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04793

SEQUENCE DESCRIPTION:

GATCTTAGCT GTATGGAGTA ACTATTTTCTAG AAAACCTAT AAGAAGTTCA TTTTCTTTCA 60
 AAAGTAACAG TATATTATTT GTACAGTGTA GTATACAAAC CATTATGATT TATGCTACTT 120
 AAAAATATTA AATAGAGTG GTCTGTGTTA AA 152

SEQ ID NO:4065

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04794

SEQUENCE DESCRIPTION:

GATCAGAGAA GGCTGAAGAA GGTGGAGAAA CTNAGGCACA AAAAGAGGGC AGTGAAGATG 60
 CGGGCAACCT CCCTGAAGCC CAGGAGAAGA ATGAAGAAGA AGGAGAGACA GCCACAGAAG 120
 AGACGGAAGA AATAGCCATG GAGGGTGCN 149

SEQ ID NO:4066

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04795

SEQUENCE DESCRIPTION:

5 GATCAACTAT GGGTTTATAT AAATNCCAAA TTTAGTACAA CAAATTTAGG TCATCAGGTG 60
 AATACAAGTA TTTTNTTAA CAGGNAACAT TTTATTATAN NAAAAATATT AATGATAAAC 120
 GCATATTGGT TGAAAAATAT TTTTAAACN 149

SEQ ID NO:4067

10 SEQUENCE LENGTH:148

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04796

SEQUENCE DESCRIPTION:

15 GATCTCTGTG ACCCATACCC TATTNTACA CTCCTCCCC TTTGAAAAT CACTAATAAA 60
 AAATTTNCTG GTTTATGGC TCAGGGGGCA TCACAGAACG TGCCAACATG TGATGTCTGC 120
 CCTGGACACC CAGCTTTAAA ATTTCAAA 148

20 SEQ ID NO:4068

SEQUENCE LENGTH:147

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04797

SEQUENCE DESCRIPTION:

25 GATCATTTTC TTGGGACCTT GAACTGTGAA TGTTTGTCC TAACCATTTA ATATTTTCTA 60
 GGTACTTGCT GCAAGTNCTT GAACTATTTT ACCAGCTTTA ACTTTGGGGC TCTTAGNTTC 120
 TNTNCTCCAG ATTCTTGTTA TNNNATN 147

30 SEQ ID NO:4069

SEQUENCE LENGTH:148

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04798

SEQUENCE DESCRIPTION:

35 GATCAGAGAA GCAGATATTG ATTGAGACGG ACAAGTCAAC TATGAAGAAT TCGNACAGAT 60
 GATGACTGCA AAATGGAAGA CCTACTTTCA ACTCCTTTTT CCCCCCTCTA GAAGAATCAA 120
 40 ATTGAATCTT TTACTNACCT CTTGCAAA 148

SEQ ID NO:4070

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04799

SEQUENCE DESCRIPTION:

50 GATCTTTTAC AACTGTGTGA CCTGAGAGA GGAGGGAGGA GGGAACTGG CGGGGGTGTG 60
 TGAGGCCGCA CTGTCAGCTG GCCGGTCCAA GCCTGTGGCT GGAGCTGGGG TCTGTTTACC 120
 TAATAAAGTC CCACAGGTGC CTCATTAA 149

55

SEQ ID NO:4071

SEQUENCE LENGTH:146

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04800

SEQUENCE DESCRIPTION:

GATCCCCTTC AAGTCTCTCT GACCTTTCTT CTGCCCTCCA GCCTGGGTGA CAGAGCTAGA 60
 GTCTGTCTCA AATAATAATA ATAATACAAT AAATAAATAA ATAAATAAAT AAATAAATAA 120
 ATAAATAAAG TACGCTTTCC ATTAAA 146

SEQ ID NO:4072

SEQUENCE LENGTH:146

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04801

SEQUENCE DESCRIPTION:

GATCTCATAG AGCCCAGTTC TTAGAGTCAA CTAAAGAGTT GATAGGAATT TACTAGGTCC 60
 AGGGAGAAAA GGCAGTGGTT GGGGTTACTG GAAATTTTGC TCATTTTCTC TAATGACTGT 120
 ATGAATAAAA GTGAACCTTAC TTGAAA 146

SEQ ID NO:4073

SEQUENCE LENGTH:146

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04802

SEQUENCE DESCRIPTION:

GATCTGAACT TACAGACAGT TGCCAAATTT CTCTAGATAA GAAAATAAAG AATAGAGGGA 60
 ACCTAACTGG ATAACAAAAA AAAAGGAGAG AGAAAAATGC CATTGCAGTT AAAGGTTATT 120
 AAATAAAGCT TAGTGTCAAT GTCAAA 146

SEQ ID NO:4074

SEQUENCE LENGTH:146

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04803

SEQUENCE DESCRIPTION:

GATCAGGAGG GACCACAAGG ACAGGAGAAT TAGCAACGAG AGACTGGCTG GCACCAAGTNT 60
 TGGGAAAAC TACAGTGAG CTCCATTCAT GGTCTATTAA AAGGCCTTN TTGTCATTCA 120
 GTGATATGTG NCTGGCCCTC GAGAAA 146

SEQ ID NO:4075

SEQUENCE LENGTH:144

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04804

SEQUENCE DESCRIPTION:

5 GATCAAAAAA TTATTTTAT TTATCCTAGC TTTACGTGCA TCTCACGGAA ACAGGATACA 60
 CGGTGTATAT ATTATNATGC AGTTCGTTGG AACTAGAATT TCAAAAAATT TTAATAAATA 120
 TGTTTAATCT GTTGCTCTG GAAA 144

SEQ ID NO:4076

10 SEQUENCE LENGTH:143

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04805

SEQUENCE DESCRIPTION:

15 GATCACTGGG CCTACCTGCA CTGTGGGGCC AAGCCCTGTC TTTTCCCAA GCCCTCAAGC 60
 ACACGCATGA ATGTTTCATCC CGACTTGTA GGGGGCTTTT CACCCTTACA AGATGGCAAA 120
 AGATTCACAT TGCTTTTTT AAA 143

20 SEQ ID NO:4077

SEQUENCE LENGTH:143

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04806

SEQUENCE DESCRIPTION:

25 GATCTGTCAT NNTTTAGCAG TCAAGTGGGA TGGGCATTAT ATAAACAACG TTACAATGTA 60
 AGGAAAATCT NTAAGGNGAT GGGGAGAGAA AAAGGCAGCT GGTATAATCG GTTACTGCTG 120
 CTTAGTTCTA CTTAATTTN NNN 143

30 SEQ ID NO:4078

SEQUENCE LENGTH:142

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04808

SEQUENCE DESCRIPTION:

35 GATCTGCCTC TCAGGAAAAA GACTAACTT GTTCTTTTGG TTCCTGGCTT TCATCAGTTT 60
 GTGAGATTTC TCTATTTTTT TTAATATAA TTTTATTCT TTCAACAAAT ATAAAATAAA 120
 40 AAACAACCTT GGNNCANTGA AA 142

SEQ ID NO:4079

SEQUENCE LENGTH:142

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04809

SEQUENCE DESCRIPTION:

45 GATCCTGGCT AACCTNGCC TATTTAGATT CCTTCCTCTC ACCTGGACCT TCCCATTTC A 60
 ATCATGCAGA TGGTTTCTTT TTGTAAAGAG TTCCGTTTGC CTTCAATTT TTAGAGAAAA 120
 50 TAAAGACTGC ATTCATCTCA AA 142

55

5 SEQ ID NO:4080
 SEQUENCE LENGTH:141
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04810
 SEQUENCE DESCRIPTION:
 10 GATCTTCTTC TCTCTTGTC ACCTATTAAT TGTTTACAAT ATTTGTTACA TCTTATGCAA 60
 AATACTTGAN TGGGCCATGG TGCCTTTTTT CCTGTNAGT ATTTAATTAA AAATGAATTG 120
 TTTGTCATTT GCAATGTAA A 141

15 SEQ ID NO:4081
 SEQUENCE LENGTH:140
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04811
 SEQUENCE DESCRIPTION:
 20 GATCCCGTTT TCCCCATGAC AATGTTGTAG TGTCCCCCAC CCCCACCCCC CAGGCCTTGG 60
 TGCCTCTTGT ATCCCTAGTG CTCCATAGTT TGGCATTGTC ACGGTTTCGA AGTCATTAAA 120
 CTGGTTAGAC GTGTCTCAA 140

25 SEQ ID NO:4082
 SEQUENCE LENGTH:138
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04812
 30 SEQUENCE DESCRIPTION:
 GATCTGTGCA GCAAACCACC ATGGCACAGG TTTATCTATG GAACAAACCT GCACATCCTG 60
 CACGTGTACC CCTGAAATTA AAGTAAAAAT TGGAAATAAA ACATTTAAAA AGAAAAGAAA 120
 ACAACAACA ACAACAAA 138

35 SEQ ID NO:4083
 SEQUENCE LENGTH:138
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 40 CLONE:HUMGS04813
 SEQUENCE DESCRIPTION:
 GATCTATCAA AGGAAAAGGA AACTGAGACC GAAAACCTAG GGTCTAAGTT GTTCTAAACC 60
 CAGGGTTCTC AAATGTGTTG TACAAAAAGT TTCATGTAAT AAAATTAAGC AAATAAAACA 120
 45 AATGAATAGA GGTCCAAA 138

50 SEQ ID NO:4084
 SEQUENCE LENGTH:137
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

55

CLONE:HUMGS04814

SEQUENCE DESCRIPTION:

5 GATCACAATG TCATTTCCCTA ATACAAGGCA GGATATGTGG GAAGAATATG TACAATTATT 60
 TGATTAAAT TATTTCCAC TGACCTAAAC TTTCAGTGAT TTGTGGGAAA AATAAATAAA 120
 TGTTCACAC CAAGAAA 137

SEQ ID NO:4085

SEQUENCE LENGTH:137

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04815

SEQUENCE DESCRIPTION:

10 GATCCACTGC CTCAGCCTCC CAAAGTGCTG GGATTATAGA CATTATGAT GAATTCTTAT 60
 15 TTTANNNNTA ATATAAGCA AATACAATTA TTGTTAGATA ACAATGCACA AAATAAAATT 120
 CAAGGGTGAA AAATAAA 137

SEQ ID NO:4086

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04816

SEQUENCE DESCRIPTION:

20 GATCCATGCC TGTAGTCCAA GCTACTCAGG AGTCCGAGGC ACAAGAATTG CTTGAACCTG 60
 25 GGAGGCAGAG GTCACAGTGA ACCATGTTCT GTCAGTGCAC TACATCCTGG GTGACAGAGC 120
 GAGACTCCAT CTCAAA 136

SEQ ID NO:4087

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04817

SEQUENCE DESCRIPTION:

30 GATCTGGTCC CTGTAGCACA GAGGTCCGAA GAACCGCCTT CAGAAAGAGG AGGCATATTT 60
 35 GGAAGTNATG GGAAAGACTT TNTGGACAAG GATGGAGAAC ACTTTGAAA ATTGCATTGT 120
 40 GCCAAGAGAC AACAA 136

SEQ ID NO:4088

SEQUENCE LENGTH:135

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04818

SEQUENCE DESCRIPTION:

45 GATCTACAAC ACCTGCCAGT GACCCCTGCC CAAGGCCTAC CCCAGTTCCT AGCACTGCCC 60
 50 CACATGCATG TCTGCCTATG CACTGAAGAG CTCTGGCCC GGCAGGCCAC CAATAAACCA 120
 GTGTGAACCC CCAAA 135

SEQ ID NO:4089

SEQUENCE LENGTH:133

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04819

SEQUENCE DESCRIPTION:

GATCTGCTGA CAGTGAGTAG TATTTTGTTC TAGGATGTTG TGACTTAGCA AAAATAATAC 60

AGATGCTTC CCCCTTTTG TAGCTTGAC AATTGAATT AGATTTCAAA TAAAATCTGA 120

ACAGAAACT AAA 133

SEQ ID NO:4090

SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04820

SEQUENCE DESCRIPTION:

GATCCTTACA TATGCCATCC TTCTGTGTC TTTGTGGCT GTTCTGTGT TTTCTTCCTA 60

GTTATTIATT ATTGTTAATA ACTTACTTTT TCTTACATTC TGTGTAAAT AAAATACAAA 120

GCAATCTTCA AA 132

SEQ ID NO:4091

SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04821

SEQUENCE DESCRIPTION:

GATCAAACAG AGGCATGCTA AGATATATTG GGGCTTGAAG CAAAGGGAAA ACTATTGTGTT 60

GCTATATGTT TGTAGGGATT TTTGCCAGT TTTAAAATA CATGTATCAT AAAGTTTACT 120

ATCTCAGCCA AA 132

SEQ ID NO:4092

SEQUENCE LENGTH:132

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04822

SEQUENCE DESCRIPTION:

GATCAGTGGG GGAGGGCACC TCAGCAACCT CTGAGTGTGG ACAATAGCTG CTTTCTTCTC 60

TATCCAAGAG CACCAGGCTG TGCTTGGNTC CTTGCTCTCA GAGTCTATAA ATAAAAGAAT 120

ATAATGATTA AA 132

SEQ ID NO:4093

SEQUENCE LENGTH:130

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04823

SEQUENCE DESCRIPTION:

GATCGGGGGT GGGATGGGAT GGAGTGAGCC CCATCCAGTT AGTTGGACTA GTTTTAAATA 60
 AAGGTTTTC GGGTTGTGTT TTTTGAACC ATACTGTITA GTAAAATAAA TACAATGAAT 120
 GTTGAGTAAA 130

SEQ ID NO:4094

SEQUENCE LENGTH:128

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04824

SEQUENCE DESCRIPTION:

GATCACAGAG GGAGGAGCTC TGAGAACAGT CTCCTTCAAC AGCTCGGCCA AGCAGAACTG 60
 CTGTACCTCT GACCACTTGT GTTAGGAAAA CTATCGGCTC CCTGTATAAT AAATCAAGCC 120
 AGGTCAAA 128

SEQ ID NO:4095

SEQUENCE LENGTH:126

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04826

SEQUENCE DESCRIPTION:

GATCTTTGCC TTTAAGCTTG AATATTTGGC TTAAANTTTG TNCATATGAA TACTGTTAAA 60
 GGTATATTTN ACTACATTTT GAAAGGAAAA AGGTAGTCCT GCTAAAATTG ACATTTAGGG 120
 ATANN 126

SEQ ID NO:4096

SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04827

SEQUENCE DESCRIPTION:

GATCTGAAAT TCTGAGATAT CAATCTAGGA ATTTCAAAAG AAACAGATTA TAGAATTAA 60
 AACTTAACAC CNGTCTTGTA TTAAGAGAAG TCAACATTTT AAATAAAACC TTGTTCTTAC 120
 CAAA 124

SEQ ID NO:4097

SEQUENCE LENGTH:123

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04828

SEQUENCE DESCRIPTION:

GATCTCAGAA CTGTGCCAAG CAGACACTGG GACAAAGGGA GAATATCTTG CTCCCCCTCT 60
 GAGTCAGCCT GGTGTTGCCC TTTATTCCCC TTATGTGCAT ATGATTAAAG AGTTATTTT 120
 AAA 123

SEQ ID NO:4098

SEQUENCE LENGTH:122

SEQUENCE TYPE:nucleic acid

5 TOPOLOGY:linear

CLONE:HUMGS04829

SEQUENCE DESCRIPTION:

10 GATCCTACAA ACAGACATTT TCCACTCGTG TTTCCATAGT TGTTAAGTGT ATCAGATGTG 60
TTGGGCATGT GAATCTCCAA GTGCCTGTNT AATAAATAAA GTATCTTTAT TTCATTGATA 120
AA 122

SEQ ID NO:4099

SEQUENCE LENGTH:121

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04830

SEQUENCE DESCRIPTION:

20 GATCTTCTCG CCTCAGCCTC CTGAGTAGCT GGAGCTACAG GTGTGAGCTA CCCAGCATGG 60
CTCATTGAG ATTTCTGAGT AGAGAAGTAA CATGATTAAA CTGGGTATT GAGATTATAA 120
A 121

SEQ ID NO:4100

25 SEQUENCE LENGTH:121

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04831

30 SEQUENCE DESCRIPTION:

GATCAATCTC TCCTCAGCT TTCTTTCCTA CTTTTCGAGC TTGCTGGCT TTAACTGCT 60
TCATTCTTCT GCTTCATTGG TATCCTTTTT TCTTTTGAAA TAAAAACATG AAATACTTAA 120
A 121

35 SEQ ID NO:4101

SEQUENCE LENGTH:121

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS04832

SEQUENCE DESCRIPTION:

GATCGACTGA GTCCAGAAAG TCAAGGCTGC AGAGAGCCAC ATTCAGTCA CTCCAGCATN 60
GNTGNCAGAG GNAGACCCTG TCTCAAAAAA AAAAGAAAAA AGAAAAAGTG ACAATGNCAA 120
45 A 121

SEQ ID NO:4102

SEQUENCE LENGTH:119

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04833

SEQUENCE DESCRIPTION:

5 GATCGGTAGG GGGCCTGCTC CTCGGACTCT GGTACCTCT AAGGCTGGGA AAGGCCTGGT 60
TGCCCACTGC NTCCNTCCCT GCCCCTCCTT TNATGTCCAT AAAGTGGCGT GAAGTGAAA 119

SEQ ID NO:4103

SEQUENCE LENGTH:116

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04834

SEQUENCE DESCRIPTION:

15 GATCACCTT AAATCNGGT TGGGAAAATA TCAATTAAT GGAATCTCTG GTTGAATTC 60
TCAATATGTA TCTTAATATG AAATAGCTCA TTAATACTTC ATGTGTAAT ATTAATA 116

SEQ ID NO:4104

SEQUENCE LENGTH:115

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04835

SEQUENCE DESCRIPTION:

25 GATCTGGGTG GTAGTTACTG GGTGTGTTCT CTTTGTGATA CTCTCTCGAG ATGTACACTT 60
AGGATTTGCA ATCTTTTCTG TAAAAATATT CAATAAAGA CATTATTTT TTAATA 115

SEQ ID NO:4105

SEQUENCE LENGTH:115

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04836

SEQUENCE DESCRIPTION:

35 GATCTTAGCT AAATCTCGGT AGATGTCATT ACAACCTNGA AAATAAATCA CCCTAAGTGA 60
CACAAATTGA AGCATGTACA AATTATACAT AATAAAGTGT TTTAATAAT TGAAA 115

SEQ ID NO:4106

SEQUENCE LENGTH:115

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04837

SEQUENCE DESCRIPTION:

45 GATCCTNCAC CTCTTGGNAA TAAAAATTGT TGGTCACTGG GGAAAGCCTG AGTTTGCAAC 60
CAGTTGTAGG GTTCTGTTG TGTITTTTTT TTTTTTTTAA AAAAAAANTN NAATN 115

SEQ ID NO:4107

SEQUENCE LENGTH:115

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04838

SEQUENCE DESCRIPTION:

GATCAGACAA GGAATGAAGC AATGNCTGTG GGCTGGGAAA CTGTACCTAC CTCTCTNCCC 60
 ACTGCAAATN NCTGGGATAG ACCAAAAGTG AATTTAATTA TGTNTTGGCT GAAGN 115

SEQ ID NO:4108

SEQUENCE LENGTH:115

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04839

SEQUENCE DESCRIPTION:

GATCCCAACT TGAAACAACA GCCAGTGCCT GTGGTAACTT AANNTNTTGT CAAATACTTT 60
 TATTGATTGG TTTATATGCC ATNTTGTGA TAGAAGAATA TGCCTTTTAA AAANN 115

SEQ ID NO:4109

SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04840

SEQUENCE DESCRIPTION:

GATCAGCTCC GTGGGACTGA TATTGGTCCA CANCANAACA GGCAGTGCCT CCTTCCCTCT 60
 GGGGAATGCA AAAGAAANCA TGGATTAAGN GAGAAGGGAG ACTCTCAGCN TN 112

SEQ ID NO:4110

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04841

SEQUENCE DESCRIPTION:

GATCGCCCAA TAAACATTCC CTTGGATGTA GTCTGAGGCC CCTTAACTCA TCTGTTATCC 60
 TGCTAGCTGT AGAAATGTAT CCTGATAAAC ATTAAACACT GTAATCTTAA A 111

SEQ ID NO:4111

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04842

SEQUENCE DESCRIPTION:

GATCGGCATA TGCATATCAA AAACAGCTCC CAGCTCTGTA AGGCATTAGA GTGAAAGCAN 60
 ANAATTTTTT AATGAAACAT TTATTTGCCT TCTTTTACTG CAGTGCTNNN N 111

SEQ ID NO:4112

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04843

SEQUENCE DESCRIPTION:

GATCATACTN CTTTATCTAG AGNTTGTCT CAGCTTGCAG AGNTTGAGGA GAAGATAGAC 60
 5 CAGTTACATC AAGAACAAGC, TTTCTGAC TTTAATATGT TTNCNGAACT N 111

SEQ ID NO:4113

SEQUENCE LENGTH:110

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04844

SEQUENCE DESCRIPTION:

GATCACAGTG CAGATAATTA CCTCACACCT GTTAGGATGG CTTTCACCAA AAAGACAAAA 60
 15 GATACGTGTA GGCAAGGATG TGGAGGAAAG AGAACTCTTG TATACGTAAA 110

SEQ ID NO:4114

SEQUENCE LENGTH:110

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04845

SEQUENCE DESCRIPTION:

GATCTTAGTC CGTTTTTTTT TTATATATTG TAACGTAAAA TGAAAAAAGA ACCCCCCTNN 60
 25 TGTATTATAG TCATGCGGTC TTATGTATGA TAAACAGTTG AATAATTAAA 110

SEQ ID NO:4115

SEQUENCE LENGTH:110

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04846

SEQUENCE DESCRIPTION:

GATCTGGGAC TTCCAGAAAA CAGAACTNTN AAAANACAAG TTTCTTTTGT TTAACCACC 60
 35 CAATCTNAAG TATTTTTTNA TGGCAGTCCT GGGCAGACTA ATACAATATN 110

SEQ ID NO:4116

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04847

SEQUENCE DESCRIPTION:

GATCTATCAT AAAAAGCAAT GTCITCTCTG GAATGGGGCT TCAGTTTCCA CATTACAAT 60
 45 TAGTACATAT TACAATTAGT GATATGAATA AAGGCTGTTA TCCTACAAA 109

SEQ ID NO:4117

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04848

SEQUENCE DESCRIPTION:

5 GATCAAAACA GGTGACAGTG AAGTGGTTTC GGCCCTGCCA ATCTGATATC GTGTATGTAT 60
 GAGAGTGGTC AGCATTTTAC CACTGGTAAC AAGTTCCTTN CTGTNCAAA 109

SEQ ID NO:4118

SEQUENCE LENGTH:109

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04850

SEQUENCE DESCRIPTION:

15 GATCTATATA ATTTATGTAT CACCTTCATT GTAAATTTAG CAGGAAATGC ATCACAATTA 60
 TNATTTTTTT TTTTGNACC AGTGAAACAA TAAAGATGCT ATTACCAA 109

SEQ ID NO:4119

SEQUENCE LENGTH:107

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04851

SEQUENCE DESCRIPTION:

25 GATCATGTTG CTGGCTTTTA TAAACTCTAA GCGAAGGAGG AGCACTGCCT CAGCCTTTGC 60
 ACATGGTAAT GAAGCACTGT TTTTAAATAA AAGAGAGAAA CACCAAA 107

SEQ ID NO:4120

SEQUENCE LENGTH:118

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04852

SEQUENCE DESCRIPTION:

35 GATCCGTGAG GCGGTGANTT GGACTGGACC CACTGCTGAT TCCCTGCACC TAGCACAGTG 60
 CTTGCCACAA AGTGGGCTCT CAATAAATAT TATTGTCCA AGGAAGGAAT GAATGAAA 118

SEQ ID NO:4121

SEQUENCE LENGTH:108

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04853

SEQUENCE DESCRIPTION:

45 GATCGTCTGA GCCCNCGGG CACTGGGTGG GGCAGAGCAC GAGTTATTTA AAACAGTTAC 60
 ACTGCAGGGT TTCGCCAAT AAAGGTGGAC TGACATTCCC TCTTCAA 108

SEQ ID NO:4122

SEQUENCE LENGTH:107

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04854

SEQUENCE DESCRIPTION:

GATCTTTTAT ACTCAGNTTN AAACACTTTA CTTGGGTTTA CCAAGCCTCA ACTGGCATACT 60
CATAAACANG CCACANGGAC CGTTCCTGCA GGCCCAACCC ACAGGGN 107

SEQ ID NO:4123

SEQUENCE LENGTH:107

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04855

SEQUENCE DESCRIPTION:

GATCCGGAAC CCACCTTTTT ATTCACTCCC CATCGTCGTT TGGCCNTTCC ATCNNTCTTT 60
NTCTTCCCT CTGCCATCCG TGACACTGAT AGTTNGTCAT ATAAATN 107

SEQ ID NO:4124

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04856

SEQUENCE DESCRIPTION:

GATCTCCAAT CTCCTCGGTT GCAACACCTG AATAAAGCCT TCTTCCCTCA CAATACTTGN 60
NNNCTCAGTG ATTGGCTTAC TGTGCAGTGA GCAACCTAGA CCAANN 106

SEQ ID NO:4125

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04859

SEQUENCE DESCRIPTION:

GATCAAAATC ACGTTTGTAG TATCATATCA AAAATTCTAA CCTGTTTACA TTGTTTNNAT 60
GTTTCATGTT CTATGTTATT AAAATATTAT TTTGTACTTA AA 102

SEQ ID NO:4126

SEQUENCE LENGTH:101

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04860

SEQUENCE DESCRIPTION:

GATCTACGGC AATGTGAATC ATTCAGATGT TTACAATAAA AAACACCACA TGAGTAAATG 60
AATTCATAA TGTTAATGTT AAATTCATG GAAAGNNNNN N 101

SEQ ID NO:4127

SEQUENCE LENGTH:100

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04861

SEQUENCE DESCRIPTION:

5 GATCCCCCT CAGGACAAAT CTACTCCAGC CACGATGAGA AGTGGGTGAG CCAGGGTCTG 60
AGTTTCACAT TTGAACCAAA TAAATGCTG TCAAGAGAAA 100

SEQ ID NO:4128

SEQUENCE LENGTH:97

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04862

SEQUENCE DESCRIPTION:

15 GATCATGCCA TTGCACTGCA CCTGGGCAAC AAGAGTGAAA CTCCGTCTTA AAAATATAA 60
GAAATAAAAA AATAAAAACC TGCCCCAGA CTGGAAA 97

SEQ ID NO:4129

SEQUENCE LENGTH:97

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04863

SEQUENCE DESCRIPTION:

25 GATCCTGAGC TAGGAGAGTA CATTTCGAG ACCTTTGGTT TCCATATTAA GAAATTCAGA 60
TTTTNATGTA CAATAAGAA GTTCTGGAAT TCTCAA 97

SEQ ID NO:4130

SEQUENCE LENGTH:96

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04864

SEQUENCE DESCRIPTION:

35 GATCTCTNTN CAGCCCTAAA GCTCCTTGGT TCTGTAATC CACCAATAGC CCATTTCAA 60
AATAATTCTA CAGTAATCAG TGGGACTCCT GTTTN 96

SEQ ID NO:4131

SEQUENCE LENGTH:95

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04865

SEQUENCE DESCRIPTION:

45 GATCACACCA CTGCACTCAA GCCTTGGCAT CAGAGTGAGA CTCTGTCTCA GTAAAAAAA 60
AATAAATAAA TAAAAATGTT TAATTAACCA TGAAA 95

SEQ ID NO:4132

SEQUENCE LENGTH:95

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04866

SEQUENCE DESCRIPTION:

5 GATCGTAGGG CATCAGAAAA ACAAAAAGAA ATAGAGAGAG TAAAAGAGAA GCAACAGAAA 60
 GAACTCAATA AACAAAAACA GATTGAAAAG GTAAA 95

SEQ ID NO:4133

SEQUENCE LENGTH:98

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04867

SEQUENCE DESCRIPTION:

15 GATCTTTATT GTTCCTCACC CCATTTTCCT CCTTGTGTAT GTACTTCCCC CACCCCCCTT 60
 TTTTAAAGTA AAATGTAAAT TCAATCTGCT CTAAGAAA 98

SEQ ID NO:4134

SEQUENCE LENGTH:94

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04868

SEQUENCE DESCRIPTION:

25 GATCTAATAA GTATTGGAAT GCTTCCTATT TGCTGATAGA AGTACCAAAT AGTATTATTG 60
 AAGTCTAACA AAGACTTTTT GTTGAGAACA CAAA 94

SEQ ID NO:4135

SEQUENCE LENGTH:94

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04869

SEQUENCE DESCRIPTION:

35 GATCGAGGTA AGAGGGACTT TNTTAAAGGC CTAGTCTATG GGATGGGGCG GCGGAGGGAA 60
 TTTTTTGAGA AATAAAATGA AGCTGCAGTG TAAA 94

SEQ ID NO:4136

SEQUENCE LENGTH:92

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04870

SEQUENCE DESCRIPTION:

45 GATCACACCG CAGACATTTA GATTTTTATA CCCAAGGCAC TTTAAAAAAA TGTTTTATAA 60
 ATAGAGAATA AATTGAATTC TTGTTCCATA AA 92

SEQ ID NO:4137

SEQUENCE LENGTH:91

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04872

SEQUENCE DESCRIPTION:

5 GATCTTTACT GATGCACTCA TGACAAGTAC CCAATGTATT TTAGCTATTT TAGTAGTATT 60
TGTTC AATAA ATACGCAAGC TGTAAAGTAA A 91

SEQ ID NO:4138

SEQUENCE LENGTH:91

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04873

SEQUENCE DESCRIPTION:

15 GATCTGCTTT TCTGCATGTT TGTCTGTGTG TCTGCGTTGT GTGTGATTTT CATGGAAAA 60
TAAAATGCAA ATGCACTCAT CACAACTAA A 91

SEQ ID NO:4139

SEQUENCE LENGTH:90

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04874

SEQUENCE DESCRIPTION:

25 GATCAAAAAA AATAAATCAC AATGGTATTT AGAAAATATT TTTCAGTAA GGCTAACAAA 60
ACACTACATA TTAATAATTAT AAAATGCAAA 90

SEQ ID NO:4140

SEQUENCE LENGTH:90

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04875

SEQUENCE DESCRIPTION:

35 GATCTTTTGA TGTGCACTAA TGCCATTATT GGTAATGCCG GTTATTGGTG AATACAGCAT 60
AGTTAAATAA ACTGTTACAG TAAATCTAAA 90

SEQ ID NO:4141

SEQUENCE LENGTH:89

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04877

SEQUENCE DESCRIPTION:

45 GATCTAGGGC AAAGTTGTCC AACTGTTGGC CCATGGAACA GCTTTGAATG CAGCCCAACA 60
CAAATCTATA AATTNCTTA AACATTAAA 89

SEQ ID NO:4142

SEQUENCE LENGTH:88

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04878

SEQUENCE DESCRIPTION:

GATCAGTCTC ATGGGCCATC TCTTCCTCAG ATGTAAATAA TATCTGGTTA AGTGTATAT 60
 5 GGAATAAAGT GGACATTTTA AACTAAA 88

SEQ ID NO:4143

SEQUENCE LENGTH:88

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04879

SEQUENCE DESCRIPTION:

GATCTCAGTG ATGTTTGAAC CTTCTGTGTA ACTTTTATT AAGCTTTGT ATCTCTCGAC 60
 15 TGATTAATAA AGAAGAGAAA CACGTAAA 88

SEQ ID NO:4144

SEQUENCE LENGTH:87

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04881

SEQUENCE DESCRIPTION:

GATCTTTATT GGTGACCTTT TGTAAGACAT TAGTTTGAGG TACTACCTAT GTACTTGAAA 60
 25 ATAATAAAGT GGCATTCTT TATGAAA 87

SEQ ID NO:4145

SEQUENCE LENGTH:86

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04882

SEQUENCE DESCRIPTION:

GATCCACTTT GTACTCTAC CAGTAGGAAC GGTCTTCTAA CAGAGAAGAT TATAGCAAAA 60
 35 AATAAAATCT CTCTTAATT CCCAAA 86

SEQ ID NO:4146

SEQUENCE LENGTH:86

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04883

SEQUENCE DESCRIPTION:

GATCCAAAGT CCAGCTCTCT CACTGAAGCC TTATCTTTCG GAAAGCTTCC AACAGTAACT 60
 45 CAGGAATTNA GCTTACTTGC TTAAAA 86

SEQ ID NO:4147

SEQUENCE LENGTH:85

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04884

SEQUENCE DESCRIPTION:

GATCTAAAGA AGAAGGTTCA GTTTTCAAAC AGAATTAGA GAAAATATAA AGAAATAATT 60
 TCTTGTCTCA AAAGGCCAAA GTAAA 85

SEQ ID NO:4148

SEQUENCE LENGTH:84

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04885

SEQUENCE DESCRIPTION:

GATCCAGCTG TGCCTAAAGC CTGCCCTACC TCCGGACTTT AAAGTTTGT GAGCCAATAA 60
 AGTCCCTTTC TTGTTAAGA TAAA 84

SEQ ID NO:4149

SEQUENCE LENGTH:84

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04886

SEQUENCE DESCRIPTION:

GATCTGAAAA GGCATTAATT TATGTACTAA TTCTATAAAC ATGTATTAAT AATTGCAGTA 60
 TTATTAAATA CAGATGGACT CAAA 84

SEQ ID NO:4150

SEQUENCE LENGTH:83

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04887

SEQUENCE DESCRIPTION:

GATCAGGCCC CCCAACTCTC CAGAACAGGC TACAAACATG CAAATTAGAA TTCTTTTAAT 60
 ATAAAAAAAA GTACTAAAT AAA 83

SEQ ID NO:4151

SEQUENCE LENGTH:83

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04888

SEQUENCE DESCRIPTION:

GATCAGAGGG NAGTACAGAA NCCCTGAAC AAAGCNTTAA GTACATACCA TACAGCAAAT 60
 AAATGGTAGC AAAACATTCT AAA 83

SEQ ID NO:4152

SEQUENCE LENGTH:83

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04889

SEQUENCE DESCRIPTION:

5 GATCTAAAAT TTGTAATATT TTTGTCATGA ACTGTACTAC TCCTAATTAT TGTAATGTAA 60
TAAAAATAGT TACAGTNACT AAA 83

SEQ ID NO:4153

SEQUENCE LENGTH:81

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04890

SEQUENCE DESCRIPTION:

15 GATCACATGG TTCACTACCA AATNACCCTC AAATAAGCCA GATGAAAATT TGAAGAAAAA 60
GGTACCCAG TTCTCTGGAA A 81

SEQ ID NO:4154

SEQUENCE LENGTH:81

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04891

SEQUENCE DESCRIPTION:

25 GATCAGAGCG TAGTTTTAAN TGTATTTTGT ATACACTTGT GAAATATTTT ATAGAAATAA 60
AAATTTTAC TTAGGAGCAA A 81

SEQ ID NO:4155

SEQUENCE LENGTH:81

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04892

SEQUENCE DESCRIPTION:

35 GATCCTTCCT CCCACCCTAN GCCTTCCTTT CCTCTTTCCT CCTCACTCTC CCCGTCATGC 60
TCCCTCTGCC CNGNCCTCAA A 81

SEQ ID NO:4156

SEQUENCE LENGTH:80

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04893

SEQUENCE DESCRIPTION:

45 GATCCAAANT AGTAACNTT TNTNATGAAC TGTACTACTC CTAATTATTG TAATGTAATA 60
AAAAATAGTTA CAGTGACAAA 80

SEQ ID NO:4157

SEQUENCE LENGTH:79

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04894

SEQUENCE DESCRIPTION:

5 GATCATTAGT CAATTGCTTT AATTATAAGC CCTGTTTTTT TTAAATCTA AAAACTAATA 60
AACATCTATA AGAATTAAA 79

SEQ ID NO:4158

SEQUENCE LENGTH:79

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04895

SEQUENCE DESCRIPTION:

15 GATCNACTGT CAAAAAGAAG GGTCAAGTA AAATAAAATG AGAGCAATTA TATATATAAA 60
TATATATCAT ACACAGAAA 79

SEQ ID NO:4159

SEQUENCE LENGTH:76

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04897

SEQUENCE DESCRIPTION:

25 GATCACCTGA ATTCTGGAGG TTGAGGCTGC ACCACTACAT TCCAGCCTGG GAGATAGAGT 60
GAGAGCCTGT CTAAA 76

SEQ ID NO:4160

SEQUENCE LENGTH:76

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04898

SEQUENCE DESCRIPTION:

35 GATCCCAAAT NTTCCACAA GCTTTATTCC AAAAATAATT TTATTTAATA GGTATTAAAT 60
AATGTATAGA AGGAAA 76

SEQ ID NO:4161

SEQUENCE LENGTH:74

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04900

SEQUENCE DESCRIPTION:

45 GATCTTCCTG TTTCAGTCCC CAAGGTGTTG GGATTATGGG CATGAACTGC TGCACCCAGC 60
CCTTTATACT CAAA 74

SEQ ID NO:4162

SEQUENCE LENGTH:73

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS04902

SEQUENCE DESCRIPTION:

5 GATCACTGGT ATGTAGATAA TAAATGTGA AAATAAAAT TAAAAATAA AACAAAAATT 60
ATGTGATAAT AAA 73

SEQ ID NO:4163

SEQUENCE LENGTH:73

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04903

SEQUENCE DESCRIPTION:

15 GATCGTGCAA CTGCACTCCG GCTTGGGCTA CAGAGTGAGA CTCCATCAGA AAGAAAAGAA 60
GAGAGAGATG AAA 73

SEQ ID NO:4164

SEQUENCE LENGTH:74

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04904

SEQUENCE DESCRIPTION:

25 GATCAGCATG TAAAGTGTCT GCGTGTAAGT AGGCTCTTAA TAAACACTGG CTGAATATGA 60
ATTGGAATGA TAAA 74

SEQ ID NO:4165

SEQUENCE LENGTH:72

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04905

SEQUENCE DESCRIPTION:

35 GATCTCAACT CGTGGCACTA ACTTGGAAAA GGGTTGATTT AAAATAAAAG GGAAGACTAT 60
TTTACAAGCA AA 72

SEQ ID NO:4166

SEQUENCE LENGTH:70

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04907

SEQUENCE DESCRIPTION:

45 GATCCTAAAC AGATGCATTG TTGCTTTTCT GTGCTGTCTC TGCAGATTAA AACATAATGA 60
TTACACTAAA 70

SEQ ID NO:4167

SEQUENCE LENGTH:135

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS04908

SEQUENCE DESCRIPTION:

5 GATCTATTAT GCCTTTTAC AAAAAAATG GCTGTAAATN ATTGTAAATA TTAAAGGAAC 60
 TTTCCTTACT TCCTTCCCTT TCTCAGGCTT TTTTGACTG TTCCTTTCCC TACCAACTCA 120
 GGCCTTCTTA TAAA 135

SEQ ID NO:4168

10 SEQUENCE LENGTH:69

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04909

SEQUENCE DESCRIPTION:

15 GATCTCCCTG GAGGTTTCAT AGCAAGGTTT GACTTGATGA ATTAATTAAT AAAGCTAAAT 60
 ATCTGAAA 69

SEQ ID NO:4169

20 SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04910

SEQUENCE DESCRIPTION:

25 GATCACCCAC GGGGAGGAGA AGGAGGAGTG AGACCCAGCC GGGTCAATAA ACCTGGACGC 60
 TTGGAAA 67

SEQ ID NO:4170

30 SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04912

SEQUENCE DESCRIPTION:

35 GATCTGCTTA TAAATAAACT TAACAAATAC ACTATGGAGA TAAAAACAA AATACCACCC 60
 ACAA 65

SEQ ID NO:4171

40 SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04913

SEQUENCE DESCRIPTION:

45 GATCTGTTTC TCTAGAAAAA AAGTCCATCT CTGGCTTTAA TAAAATTATG CATCAGAAAT 60
 CAAA 64

SEQ ID NO:4172

50 SEQUENCE LENGTH:76

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear
CLONE:HUMGS04914
SEQUENCE DESCRIPTION:
5 GATCTCATGC TNAGCAGAGC AAAAATTGTA AAATATTTTG ATTAAAAATC TAGGGACCTT 60
TATGTCCTAT TTGAAA 76

SEQ ID NO:4173
10 SEQUENCE LENGTH:63
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04915
SEQUENCE DESCRIPTION:
15 GATCAGGAAG TGGCTTTGTG TCTTCCACA TGTATGTATA AATAAAGTGT TCTTTTAAGC 60
AAA 63

SEQ ID NO:4174
20 SEQUENCE LENGTH:63
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04916
SEQUENCE DESCRIPTION:
25 GATCCTCATT TTTTCCATT GTAAAATTGG GCTAATAAAA GATGCTACCT ACTGACTATT 60
AAA 63

SEQ ID NO:4175
30 SEQUENCE LENGTH:62
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04917
SEQUENCE DESCRIPTION:
35 GATCACGCTA CTGCACTCCA GCACTCCAGC GCAGGCAACA GAGGGAGACT CTTTGTCTCA 60
AA 62

SEQ ID NO:4176
40 SEQUENCE LENGTH:62
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04918
SEQUENCE DESCRIPTION:
45 GATCCTGAAT TTCCAGCCA ACAGAACCAA GTGCTAAATA AACTCTTTT TAATAAGTTA 60
AA 62

SEQ ID NO:4177
50 SEQUENCE LENGTH:62
SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear
CLONE:HUMGS04919
SEQUENCE DESCRIPTION:
5 GATCAAAACT CTGTTCTCAA AAATAAATAA AAAATAAAAA ACAAACAAC AACAACAACA 60
AA 62

SEQ ID NO:4178
10 SEQUENCE LENGTH:61
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04920
SEQUENCE DESCRIPTION:
15 GATCACGCCA CTGCATTCCA GCCTGGGAGA CAGAGTGAGA AATAAATAAC TGTAATGTAA 60
A 61

SEQ ID NO:4179
20 SEQUENCE LENGTH:60
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04921
SEQUENCE DESCRIPTION:
25 GATCCAAGCA AACTACTTTA AGCAAATATT TGTAATAA AAAACGGAGG ACCGCTCAAA 60

SEQ ID NO:4180
30 SEQUENCE LENGTH:60
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04922
SEQUENCE DESCRIPTION:
35 GATCTAACAG TTCTCCAATA AAATAGTTCT CATTCCAGAG AGCAGATGAA TATATTTAA 60

SEQ ID NO:4181
40 SEQUENCE LENGTH:59
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04923
SEQUENCE DESCRIPTION:
45 GATCTATGAC TGTACTACAC TCCAGCCTGG TCAACAAAGC AAGACCATAT CTCTTTAA 59

SEQ ID NO:4182
50 SEQUENCE LENGTH:59
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS04924
SEQUENCE DESCRIPTION:
55

GATCCAAGTA TTTNATCTGT GTTGTCTCTC TAAACCCAAA TAAATGTGTA AATGTGAAA 59

5 SEQ ID NO:4183

SEQUENCE LENGTH:59

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04925

10 SEQUENCE DESCRIPTION:

GATCCAATAC ACACATANCT TACAACTATC ACAAATTCCT ATTAAATATT AAAAGTAAA 59

SEQ ID NO:4184

15 SEQUENCE LENGTH:59

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04926

SEQUENCE DESCRIPTION:

20 GATCTCAAAN NGAAATCTTA TACCAGTGAC AACTGTATTA GAATATATCT GTTCTTAAA 59

SEQ ID NO:4185

SEQUENCE LENGTH:57

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04927

SEQUENCE DESCRIPTION:

30 GATCTCATAT TAATATTTTA ATATTCTTTT TCAAAATAAA ACAGAAAAGC AAGTAAA 57

SEQ ID NO:4186

SEQUENCE LENGTH:57

SEQUENCE TYPE:nucleic acid

35 TOPOLOGY:linear

CLONE:HUMGS04928

SEQUENCE DESCRIPTION:

GATCTGTGTG TTCTTTCAAA GAGAAGTTAT GTCTAATTAA AATGTGTAAC GGACAAA 57

40 SEQ ID NO:4187

SEQUENCE LENGTH:57

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45 CLONE:HUMGS04929

SEQUENCE DESCRIPTION:

GATCCGNGAG AGAACGACCA CAATTTAAAC ACATCAATAA ATACTTTAAC TTCCAAA 57

50 SEQ ID NO:4188

SEQUENCE LENGTH:56

SEQUENCE TYPE:nucleic acid

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EP 0 679 716 A1

TOPOLOGY:linear
 CLONE:HUMGS04930
 SEQUENCE DESCRIPTION:
 5 GATCAAGAAG GACTACCTGT CATGTGAGAC CATCACTAAG AAACCATTG CTGAAA 56

SEQ ID NO:4189
 SEQUENCE LENGTH:52
 SEQUENCE TYPE:nucleic acid
 10 TOPOLOGY:linear
 CLONE:HUMGS04940
 SEQUENCE DESCRIPTION:
 15 GATCCCACTT CGGTCTGTAA ATTCCCTCAA TAAATCACCC AATATTGACA AA 52

SEQ ID NO:4190
 SEQUENCE LENGTH:51
 SEQUENCE TYPE:nucleic acid
 20 TOPOLOGY:linear
 CLONE:HUMGS04945
 SEQUENCE DESCRIPTION:
 25 GATCCCCAAA GCTTAAAATA TCGACTATTT AGAGTGAGAC TCCATCACAA A 51

SEQ ID NO:4191
 SEQUENCE LENGTH:51
 SEQUENCE TYPE:nucleic acid
 30 TOPOLOGY:linear
 CLONE:HUMGS04947
 SEQUENCE DESCRIPTION:
 35 GATCAGCCAN GCATTCCAGC CTGGTGACAG AGCGAGACTC TGTCTCNGAA A 51

SEQ ID NO:4192
 SEQUENCE LENGTH:56
 SEQUENCE TYPE:nucleic acid
 40 TOPOLOGY:linear
 CLONE:HUMGS04948
 SEQUENCE DESCRIPTION:
 45 GATCTTGTTT GTTGAGGGAG ATGGGACTAT AATAAAATTG AATGCTGAAG TTGAAA 56

SEQ ID NO:4193
 SEQUENCE LENGTH:50
 SEQUENCE TYPE:nucleic acid
 50 TOPOLOGY:linear
 CLONE:HUMGS04950
 SEQUENCE DESCRIPTION:
 55 GATCGCGCCA CTGCGTTACA GCCTGGCGAT AATGCAGGAC TCAGTCCAAA 50

EP 0 679 716 A1

SEQ ID NO:4194

SEQUENCE LENGTH:113

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04965

SEQUENCE DESCRIPTION:

GATCTGTCTT GTAAACCACA TTCTTGACAA CTATTTGCTT TTGAGTAGTT TGTATTTTAA 60
TATGTGACTT TNGTCTTGAA AAGTAGTAAA GCCATAGACT TGTGCAAAAC AAA 113

SEQ ID NO:4195

SEQUENCE LENGTH:192

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04985

SEQUENCE DESCRIPTION:

GATCATTATG CAATAAAGCT GCTAAAGTNA CATTGTGGT TGATACTCAA GCCTTGATACA 60
AGCACATATN ATGTAGACAT TTTNAAATGT NAAGCTTTAA CAGGAATAGG ATAGCTGTTT 120
CAAACCTTGT GCAATTGTAA ATAAATTGTT TAGCTGTGTT TCTTTCATT TNAATAAAAA 180
ATTAAAAAGA AA 192

SEQ ID NO:4196

SEQUENCE LENGTH:50

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04986

SEQUENCE DESCRIPTION:

GATCAATTG TAATTGCTTA CATTTTACA ATAAATAATC TGTACGTAAA 50

SEQ ID NO:4197

SEQUENCE LENGTH:282

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04987

SEQUENCE DESCRIPTION:

GATCTTTCTT TGGCAACCAC TTTTACTGT CGCCATAGTT CTTCCTTTC TAGAATGTCA 60
TATTGGAATC ATATAGTATG TAGCCTTTC AGACTGGCTT CTTCCTTCA ATAATATGCA 120
ATTAAGGTTT CTCCATGTCA TTTCATGGCT TAATAGTGCA TTTATTTTGA GCACTGAATA 180
ATACTCCATT GTCTAGATGA ATAGTTTATC CATTACCTA TTGAAAGACT TCTTGGTGGT 240
TTCCAAGTTT TGGCAATTAT GAATAAAGCT GTTGTAACA AA 282

SEQ ID NO:4198

SEQUENCE LENGTH:257

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04988

SEQUENCE DESCRIPTION:

5 GATCTTTTCA GTCAAAAATC TAAGATGATT TATTTTGTAT CACTTTGTTA AAAGCTGAAT 60
 ATTGTAACT ACAGTTAATA TTAACACTGT ATTTATACTT TCTCAAATA CATCCGCCCC 120
 ACCACTTCTG GTTGCCTCTG TTGACTATTA ATCCAGATGT AAACAACCAG ATGTTTTTTT 180
 CTAAC TTGTA CAAACTGACG TGTGTCAACT ATCATGGAAG GAAAAAATG TACAGATTAA 240
 AATTATTCAG NGTTAAA 257

10 SEQ ID NO:4199
 SEQUENCE LENGTH:132
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04989

15 SEQUENCE DESCRIPTION:
 GATCCAGNG TTAGCTATAA CCAGATTAC TCTTTGCTTA CTAGGNTTTC CATNNTCACC 60
 ATTGGATGAA CCNCTGGTTT AGCCACAGTT GTGAAAATAA ATGGAAGTTG GTTGATTGTC 120
 TAGAAAGTGA AA 132

20 SEQ ID NO:4200
 SEQUENCE LENGTH:51
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04990

25 SEQUENCE DESCRIPTION:
 GATCCGCATC CAAGCTTAAC CAAGGCTCCA ATAAACGTGC TAGGAAGCAA A 51

30 SEQ ID NO:4201
 SEQUENCE LENGTH:108
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04991

35 SEQUENCE DESCRIPTION:
 GATCAGTCGC TGACTCATTG GATGAACCAG GAGCCTGCAT GCTACAGCCC ACCTGCCAAA 60
 TCTTGCCCCC ACCTGCTTTT TAAATAAAG TTTTATTGGA ACATGAAA 108

40 SEQ ID NO:4202
 SEQUENCE LENGTH:113
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04992

45 SEQUENCE DESCRIPTION:
 GATCTTTGCT CTGTTTCCAG TGGGGTTTGA AGCAGAGTTC AGGGAACCCT GCCCAAGGTC 60
 CTCCTGTTCA GACATTCTTA TGTGAATAA AGTATGTTTG ACTTCCCCGG AAA 113

50 SEQ ID NO:4203
 SEQUENCE LENGTH:471

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SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04993

SEQUENCE DESCRIPTION:

GATCCACCT CAAATTAGCT TGATTGCAA ACAGATATTG GAACATGGAG CTGAGAAGAA 60
 GATGGTCTGG GCTTCAGGCA CAGCTGGGTC CAGGGACTCA GACNNNTTG TCTCCATCTA 120
 TCTNCTGTGT TTTNCTGTAG GAGGTGGCCT CACTTTCCCC TAGTTCAAAA GGGCTTACTC 180
 CATATGATGG GGGAAAGGAA GACAGGNCCA TGAACAGCCC TAGACTTCCA TCAGCCCACC 240
 TGGGAAGCCC TCACAGGAAA ATNAGTCTCA TTCCTAGTAC ATGAAATCTC AGGGGAGGGA 300
 ACTCCGATTT GGCACCTTC AGTNATGTGC CCNGTCCCTN GGGGCCAAAT CCNCTTTTGG 360
 GTTGGTGGG GCGGTTTCA AGTGATTGGG NAAATNGCCA ACCNAAAGTT CANGTTNGAA 420
 GTTGGAGNAA NGGGGAANTT TTNCCCAAAA AGAAANGGNA AGGTTTGNTA N 471

SEQ ID NO:4204

SEQUENCE LENGTH:338

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04994

SEQUENCE DESCRIPTION:

GATCAGGAAT GGGTGATTGG AGATTATTAG ATTCTAGGTT AACTTCTACC ACTTTACCCT 60
 AATACATAAA ACTTTTTCTT AAATAAATGA TGGAAGGAAT AATACTTGGT TACCTGGCAT 120
 TATTTTTCAG TAAGAAAAAA GCTTTACTAA CCACTACATT TATGGAAATT TGTAGGGGTA 180
 AGTATTTTAT AGGTCATAAA AAACACCATA ATATAACGAA TCTCATTNC TTTAAATGTG 240
 AATTAAATCC TAACAGTCAT CTTTATAAAA TGACCATAGG CTAAANTCTT ACGTGTAAGT 300
 NCTACTACAN TAAATANTTT CTGGAACCT TTTATAAA 338

SEQ ID NO:4205

SEQUENCE LENGTH:237

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04997

SEQUENCE DESCRIPTION:

GATCACCTTC CAGACCACAG CAGATGTGGG ACACACAGCC TCCTGACTCC AGGAAGAGCC 60
 AGANCTGTGC AGGGAGGAAG GGGTGAGAGG GGGGCCCCCA CACCTAGACT CAGTAAGGAA 120
 GTCGGGTGNG ACCTTAACAT CTNCATTGGA CAACTCCACC CNTNCCTTGG CCTTGCCCCT 180
 GCCCGNNTAC ACTCCTACGT NTCCANGGGC TTNGGCCGTG ACTTAGGNAG AGGAGTN 237

SEQ ID NO:4206

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04998

SEQUENCE DESCRIPTION:

GATCATCCGC AGNCTCATGT TAAAAGGATT TTAGCTCACT AAAAGTGTA TAATGGAAAT 60
 GTGGAAAATA TCGTAGGTAA AAGAACTAC CTCATGCTCT GAAGGTTTGT TAGAAGCACA 120

EP 0 679 716 A1

5 ATTAACATC TAAATGGCT TTGTTACACC AGAGCCATCT GGTGTGANGA ACTCTATATT 180
 TGTATGTTGA GAGGGCATGG ANTAATTGTA TTNGCTGGC AGTAGACACA TTCTTTATTA 240
 TTTGCAGATT CCTCATCAA TCTGTANTTA TGCACAGTTT CTGTTATCAT TAAACAAAAG 300
 GAATCCNGTT AAA 313

10 SEQ ID NO:4207
 SEQUENCE LENGTH:271
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS04999
 SEQUENCE DESCRIPTION:
 15 GATCACATCT NTNTGAAGCC AAAGCCCCGT GGTGCCCCAT GAGAAGTGTC CTTTTTCATT 60
 TTCACCAAAA TGAAGTGTGA ACGTGATGTT TTCGGATGCA AACTCAGCTC AGGNATTCAT 120
 TTTGNTCTT AGTTTTATAT GCATCCTTAT TTNTAATACA CCTGCTTCAC GTCCCTATGT 180
 TNGGAAGTCC ATATTTGTNT GCTTTTNTTG CAGCATCATT GCCTNTACAA TACTGNCCGG 240
 TGGACAAANT GACAAATNGAT ATGTNTTGCT N 271

20 SEQ ID NO:4208
 SEQUENCE LENGTH:345
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS05001
 SEQUENCE DESCRIPTION:
 GATCGCACTG TGGGCCGGGG CCCTGGAGGG CTGCTCTGTG TTAATAAGAT TGTAAGGTTT 60
 GCCCTCCTCA CTGTTGCCG GCATGCGGGT AGTATTAGCC ACCCCCCTCC ATCTGTTCCC 120
 30 AGCACCGGAG AAGGGGGTGC TCAGGTGGAG GTGTGGGGTA TGCACCTGAG CTCCTGCTTC 180
 GCGCCTGCTG CTCTGCCCA ACGCGACCGC TGCCCGGGTG CCCAGAGGCT GGATGCCTGC 240
 CGGTCCCCGA GCAAGCCTGG GAACTCAGGA AAATTCACAG GACTTGGGAG ATTCTAAATC 300
 TTAAGTGCAA TTATTTTAA TAAAAGGGGT ATTTGGAATC AGAAA 345

35 SEQ ID NO:4209
 SEQUENCE LENGTH:406
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 40 CLONE:HUMGS05002
 SEQUENCE DESCRIPTION:
 GATCTTACTT TCATAATTCT TTGATTCTAG CTTGCAGAGT CAAGACGNAA AGNTAACTCA 60
 TGGGATGGAC AAAGTGAAG ATGTAAAATA AGTAAGGCTT TNTGGGCCAA AAAGCCTCTT 120
 45 CTTACAGAAA ATCAAATTTT AAAAGAACAT TGACCTCAA ACAATAAAAC TGTCTGGTT 180
 ATGCAATAGA AATAGCTATA TAAATGGAAT CATATCCTTA ATGAACACCT CCTGTGGCTA 240
 CCCAACTTTT CACACATCTT ACTGATTATA GGCCTTGCTG TGAATGCTTT CTTGCTCTAT 300
 CTGAAGTATT CCCACCAGAG TTGTTTCCAA CNTTATTTCC TATATTATGA AAAATGANGT 360
 50 TTTTTTAAAC TTGTAACAAA GTATTTGNAA GGTAATGTAT ACTGTN 406

SEQ ID NO:4210

55

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05003

SEQUENCE DESCRIPTION:

GATCTAAAAA AANNATAATT ACATTAGTAA CACAACATAA GAAAAAGACA GGGACAAAAA 60

CAAAAAAAAA TAAA 74

SEQ ID NO:4211

SEQUENCE LENGTH:230

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05004

SEQUENCE DESCRIPTION:

GATCCTATGT GGAAGGGCTG TTTTAAAGA AAAAATTTT GGTAAACAGT ATTGTGTAAA 60

ATTGCTTTTT GTATACCAAT ATATGCATGT TTTGTGCATG AGTAGTACTT GTGTTGATAC 120

TCCTGTTGAT GTTAAATTAC TATATAATAT AANCAGTATG TGTTTTTATA TATCATTGTG 180

TAAATTTAAT ATAACATATG CNGTAATAAN CCATTNGTNT TACGGGCAAA 230

SEQ ID NO:4212

SEQUENCE LENGTH:161

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05005

SEQUENCE DESCRIPTION:

GATCTCAATC AAGTTAGCAT GCTTNCCTCA GCTGCCCTAT NACCTGCCAG CTCATCACAA 60

AGAACCACGG CCACCCAGGT CATGGCAAAC TCTGCTGGAC TTAACCTCAT CAATGTAGTG 120

GGCTCTNTTT GTGGGGCCCA GGCTTTGATG AGTNGGNNNN N 161

SEQ ID NO:4213

SEQUENCE LENGTH:259

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05006

SEQUENCE DESCRIPTION:

GATCGAGACC ATCCTGGCCA ACATGGTGAA ACCCCGTCTC TACTAAAGAT AAAAAATTA 60

GCTGGACATG GTGGCGGGCG CCTGTNTTCC CAGCTACTGG GGAGGCTGAG GCAGGAGAAT 120

GGCTTNGAGG CAGTAGAACT GCTTGAACCC TGGAGGCGGA GGTTACAGTT ATCCGAGGTT 180

GTGTCATTGC ACTCCAGCCT GGGGAACAGA GCGAGACTCC ATCTCAAAAA AAATAAAAAA 240

CTTCAGCTTT TGCATGAAA 259

SEQ ID NO:4214

SEQUENCE LENGTH:71

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05007

SEQUENCE DESCRIPTION:

GATCATGCTT TAAGGTTTAT GTAAAGAAAG TGTACTGATG TTCTTACATT AAAGCTTTAC 60
 AAAGATTTAA A 71

SEQ ID NO:4215

SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05008

SEQUENCE DESCRIPTION:

GATCTTGGTG GTAGTAGCTG TCTATGATTC TNGCTCAGCA AAGTAAAATA AATGTTAAAT 60
 ATGGAAA 67

SEQ ID NO:4216

SEQUENCE LENGTH:143

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05009

SEQUENCE DESCRIPTION:

GATCAATGA AATAATGTAC ATGAAAAGAC ATATATAAAA TGTATAATAC AGACAAAGGG 60
 NCCTGTTACA CAGTTGGAAG TCATNCCCTC AGATTTTGGG CCTAGGAAGG TAGGTGATTT 120
 AAACCTCACTG AAAGCANNNGN NNN 143

SEQ ID NO:4217

SEQUENCE LENGTH:362

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05010

SEQUENCE DESCRIPTION:

GATCACAGCC ACTGGTCCAT AACAATTAGG AAAAATCATT GGACAATGGT TGTCAGGTTT 60
 CTCCATTGGA GGGAAATTGTG TTTCATGATT AGGCACTGTT TCTGCTCCTT AAAAATGACT 120
 TTCCAGTCTA TCCTCCACAG CTCTTTGTTC TACACTCTAG GGAATCATT TTTTCCCTC 180
 ATCTTCCTTA GTCACCTGCA AAGGACATTA GAGAATATGC CCTTTTGGT GGATAAATGG 240
 GTTCTTCAAC CTGCTTTCTG CCTGTAGAAA ATTAGAGGCC AATAATCTGT TTATATCTTG 300
 TAGAATGTCT ATTTAGCTG GTACCGGTAC TTTTGTCAAT AAAGTTCTTT TTTAACTTA 360
 AA 362

SEQ ID NO:4218

SEQUENCE LENGTH:213

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05011

SEQUENCE DESCRIPTION:

GATCTGNAA GAGCACATAT GTGTCAGGGC ACAATTCCCN CTCATAAAAA CCACACAGCC 60

TGGAAATTGG CCCTGGCCCT TCAAGATAGC CTTCTTTAGA ATATNATTG GCTAGAAAGA 120
 TTCTTAAATA TGTGGANTAT GNTTATCCTT AGCTGGAATA TTTNCTCTAC TTCCTGTCTG 180
 CATGCCCNAG GCTTCTGAAG CAGCCAATGT CGN 213

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SEQ ID NO:4219
 SEQUENCE LENGTH:169
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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CLONE:HUMGS05013
 SEQUENCE DESCRIPTION:
 GATCACTACA ACANTTTNTT TGCCTCCAAG GTCCTCTGAG GCAGCAGGCT CTGGGGCTTC 60
 TNCTGTCTT TGGAGGGTGT CTTCTGGGTA GAGGGATGGG AAGNAAGGA CCCTTACCCC 120
 CGGNTCTTCT CCGACCTGC CAATAAAAT TTATGGTCCA AGGGAGAAA 169

15

SEQ ID NO:4220
 SEQUENCE LENGTH:235
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05014

20

SEQUENCE DESCRIPTION:
 GATCGCGCAG GATTTCAAAA CCGACCTGAG GTTTCANAGC GCANCATCGG TCGGCTGCAG 60
 GAGGCTAGCG AAGNANCCTG GTGGGTCTGT TCGAAGATAC CAACCTGTGT GCCATCCACG 120
 CTAAGAGAGT CACCATCATG CCCAAAGACA TCCAGTTGGC TCGCCGGATA CGGGGAGAGA 180
 GAGCTTAAGT GAAGGCAGTT TTTATGGCGT TTTGTAGTAA ATTCTGTAAA ATAAA 235

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SEQ ID NO:4221
 SEQUENCE LENGTH:196
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05016

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SEQUENCE DESCRIPTION:
 GATCAAAGTC CTACAGTGGC TGTCACGCAG CCACNAGGTC ATCTCCTTTC ATCCCCACCC 60
 CAAGGCGCTG GCTGTGACTC TGCTTCCTGC ACTGACCCAG AGNCTCTGCC TGTGCATGGC 120
 CAGCTGCGTC TACTCAGGTC CCAAGGGGTT TCTGTTTCTA TTCTTTCCTC AGACTGCTCA 180
 AGAGAAGCAC ATGAAA 196

40

SEQ ID NO:4222
 SEQUENCE LENGTH:262
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05018

45

SEQUENCE DESCRIPTION:
 GATCTGCACC AGACTGTTAC CTTCTGGGGG AGATGGAGAT TTGACTGTTT AAAAAGTAA 60
 AACAGCGAGG AGTCTTTCTA GAACTTTTGA AACTAAAAG GATGAAAAAA ATTAGCAAAC 120
 CGAAGTTTCT TCAATGACCC CTCGAGAACT TTGGGACCAG TTTCTATGG GGGACTCAGT 180

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TTCAGAGAAC TGAGACAGAA GCTCTTCTGT CGTTATATTC TTCTTTCCTT TTTTGGATT 240
TATTAAATAT TTTCTGTGGA AA 262

5 SEQ ID NO:4223
SEQUENCE LENGTH:277
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS05019
SEQUENCE DESCRIPTION:
GATCCTGCAG TGTCTGTGG GTTCATCTCG GATGGGCGCT GCATAAACAG CCTGCAGGGA 60
ACGTCTGGGA GAACCAGCTT CACAACAGAT ATAATAAGGA AGAAGTTTGA AATATTGCAA 120
GANTTGCGAA AGTGTGACAC ACAGATACAA AGTGGGCACA TGCTCGTGGG AAAATGTTGC 180
15 CAATAGACTT GCTTGACTCT GGAGTTACCC CGAACCTTCA ATTTGTTTAA AAAAAAAAAA 240
GGGCANTTTN TTGNNGNGCA NTAAGGTGNC CTGCAAA 277

20 SEQ ID NO:4224
SEQUENCE LENGTH:271
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05021
SEQUENCE DESCRIPTION:
25 GATCGCGTCC ACCTTCATCG CTGTGGTGCA AGCCATCGTC CGCACGGGTG GTGGCTGGGC 60
AGCTGCCTCG GACTCCAGGA AAGGCGGGGA GCCTGCCGGC TACTGAGTGC TCCAGGAGGA 120
CAAGGCTGAC AAGCAATCCA GGGACAAGAT ACTCACCAGG ACCAGGAAGG GGACTCTGGG 180
GGACCGGCTT CCCCTGTNAG CAGCAGAGCA GCACAATAAA TNAGGCCACT GTGCCAGGNT 240
30 CCAGGTGGCC TNCCTGGNCT GTTCCCCAA A 271

SEQ ID NO:4225
SEQUENCE LENGTH:138
SEQUENCE TYPE:nucleic acid
35 TOPOLOGY:linear
CLONE:HUMGS05023
SEQUENCE DESCRIPTION:
GATCCACGGA AGACTGTCAG CAGACTTCAC CAGAAAATT TCACGCCAGA NGGCAGTCGT 60
40 GATATATACA AAANGCTGAA AGGAAANCAC TGCCATCCAG GANTACTATC TCCAACNTC 120
CTGTGTTTCA AAANTTAN 138

SEQ ID NO:4226
SEQUENCE LENGTH:64
45 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05024
SEQUENCE DESCRIPTION:
50 GATCTGCATT TAAAAATATG GTCTTTGTTT TATATGATTA AATGGTTTGT TTTCATAGAT 60
GAAA 64

55

SEQ ID NO:4227

SEQUENCE LENGTH:296

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05025

SEQUENCE DESCRIPTION:

GATCCCGGCT GTTGGTGAGC AAAGAGCCCA GGCCCTAGA GTGCGCATGT NCAGGCTCCG 60
 CTGTTAGANT CACAGCGGTT CAAATCCGGC ATCTGGTCGC TGAGTGGCCT CAGGCAGTGA 120
 CCACGCTCCC GGACCCAACC TTCAGCTTGC CCAAAGCAAT AATCTTTCCT AAAGAAGTGC 180
 TTGGNTGGGG ATGGTGGCTC ACGCTTGTA ATCCAGTAC TTTGGGAGGC CAAGGCAGTC 240
 TGGGCAATAT AGTGAGGCTC CCATCTGTAC TAAAAATAAA AAAGTAGGC GTGAAA 296

SEQ ID NO:4228

SEQUENCE LENGTH:135

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05026

SEQUENCE DESCRIPTION:

GATCAGACCT CTCATGTGT GGAGATGAAA AAGCCCTAAA GTTTATGTTT CTAATGTGTC 60
 ACAGAATAGG ACGATATGAT TCTACAACAT AATCAACTCC CTATTAAATT CTTAATGAA 120
 GATTTTTTTT TAAA 135

SEQ ID NO:4229

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05027

SEQUENCE DESCRIPTION:

GATCCTCTTT CTAGCATGAA TGAAGGATGC CAAGAATGAG AAAAAGCAAG GGGTTTGTCC 60
 AGGTGGCCCC TGAATTCTGC GCAAGGNATG GGCCTGGGG AACTCAAGGG AGGGCCTAAA 120
 GCACTTGTA CTTTGAACCG TCTGTCTGGA GGTGAGAGCC TGTGGAAAG CAGGGGTAGA 180
 GGGGAGCCCT GGAAGCAGGG CTTTCCGGA TGCCTAGGGG TGGGCAGTGC CAGCCCCCTC 240
 TCACCACTCT TCCCCTTGCA GTGGAGGAGA GAGCCAGAGT GGATACTATT TTTNATTAAA 300
 TATATTATTA TATGTAAATA AAAAANTCAT ATCCAAA 337

SEQ ID NO:4230

SEQUENCE LENGTH:179

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05028

SEQUENCE DESCRIPTION:

GATCCTTCGC GAGCGAGTGA ACAAGAGGCG GGTGAAGGAG ATGGTGAAGG AGTTCACACT 60
 GCTGTGCCGG GGTCTCCATG GCACAGGGTA CACAGCTGAC TACTGAGGGG TGCCCCCATC 120
 CCATCCACCC CTTCTCTTCA TCCTTCCCTA TTCCCAAAGN GTAAACCTGG NCCCTNAAA 179

SEQ ID NO:4231

SEQUENCE LENGTH:207

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05029

SEQUENCE DESCRIPTION:

GATCGCTGGA CGCTATGAGA GGGCGTCCCA GGGCCCAGCC TCCCACAGCC GTTTCAGCAG 60
 GGACAGGGGC TGAACAGGCC CTATTCCAGC CCCCTTGCTT CACTCTACCG GACAGACGGC 120
 AGCAGTCCCA GCTCTGTTT CCTTCTCGGT TTATTCTGTT AGAATGAAAT GGTTCCTATA 180
 AATAAGGGGC ATGAGCCCTT CCTCAAA 207

SEQ ID NO:4232

SEQUENCE LENGTH:386

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05030

SEQUENCE DESCRIPTION:

GATCTGAAAT AGTTTCTTC CACTACATTG TTGAAATCAA TGAAGCAATT AGTTTCTCAT 60
 TCAGAAATGT GCACACTAAT ATTTAGTTTT GCTTCTCGT GGATAATATT AAGCNCTTAC 120
 TCTGCAGTTT CCTGGAAGTT GTGTCAACTG CAGTGATACT ATTCAGGATG GTGGGAAATC 180
 CCCAAAAATA TGTATGTGTG GGCCTGCTTA GATTACTATA TTTATAGTT AATCTTTTGT 240
 CTCTTGCAGT GCTCATGATG TGTGGGACAC ACGGAAGGCA TTGCTGTAGT CAGTCATTTT 300
 GGTTCCTTC TATAGCCATT TTATTATTTT AGTGTATTAG TTATGAAGAT AATATTNNCT 360
 ATTTGTAAAT NGCTACTTTG TATTTN 386

SEQ ID NO:4233

SEQUENCE LENGTH:356

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05031

SEQUENCE DESCRIPTION:

GATCTTCANA TTGCTGTGAT TAATGCATCC AGATTNTTTT CCTAGTATTT CCAGGTTAGA 60
 ACCTGTGGAT TGTTTCANTT GCATATAGCT TGGTTCCAT AACATAGAGC ATTGGTTGAC 120
 TGTTTACAGA AGACTCACTC ACCAGGATAA ACATTGCNGT ATGTNACAGT AAAGCTATCT 180
 GGAGAGANCA CATAAATGAT TTTGGCATAC CATTAGAGAA ACCATTGTA AACTCAAAT 240
 GNCCACATAA NGCTTATCAG GGGGTCTAGA TTGGTNTTGT NNTATACCAT ATGGGATGAN 300
 GNAAANTAGA AATGTCAGTA GAACTCATTG AGGGTGTCT NGCCAGCTGC NGANAN 356

SEQ ID NO:4234

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05033

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

GATCTGCTTT TTTNAAATGT TAAGGACATA TTTTNAAGTT ACTGCTGAGT GAAGAAAGAA 60
CATAGCTCCC CCTCATTCCC TGCCTAAGAA AGGAGCTTAA AGAAA 105

5 SEQ ID NO:4235
SEQUENCE LENGTH:343
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS05034

SEQUENCE DESCRIPTION:
GATCAGGGCC TTCCTGCCCT CCGCTGGGCA GGTCTGGCCT TGCNCTCTTG GCAGGGCCCC 60
AGCCCCCTTA ACCACTCTGC AGCTCACCAT GCAGCTGATG CCAAANTTGT GGTGTCCAGT 120
GTGCAGCAGC CCTGGGAGCC ACTGCCACCT TCAGAGGGGT TCCTTGCTGA GACCCACATT 180
15 GNTTCACCTG GCCCCACCAT GGCTGCTTGC CTGGCCCAAC CTAGCCTTCT GTGCCATGNT 240
AGAGCTTGAG CTGTTGCTCT NCTTCAGGGG AGGAAATAGG GTNGAGAGNG GGAAGAGNNT 300
TNGCTCTTAA GTGTTGCTGC TGTGGCTTTT TTTGCCTTCT GCN 343

20 SEQ ID NO:4236
SEQUENCE LENGTH:370
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05035

25 SEQUENCE DESCRIPTION:
GATCATTCA AAACCTATTT CCTATGTAAC TGCATTGAGA ACTGCATATG ATTCGCTGAT 60
ATATGTGTTT TTCACATTTG CGAATGGTTC CATTCTCTCT CCTGTACTTT TTCCAGACAC 120
TTTTTTGAGT GGATGATGTT TCGTGAAGTA TACTGTATTT TNACCTTNTT CCTTCCTTAT 180
30 CACTGACACA AAAAGTAGAT TAAGAGATGG GTTTGACAAG GTTCTTCCCT TTTACATACT 240
GCTGTCTATG TGGCTGTATC TNGTNTTCC ACTACTGNTA CCACANCTAT ATTATCATGC 300
AAATGCTGTA TTCTTCTGTT GGGTGGAGAN AAAGGATTTC TTGNAGGTTT NGTTTTTAAA 360
ATTNAAAGCN 370

35 SEQ ID NO:4237
SEQUENCE LENGTH:529
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
40 CLONE:HUMGS05037

SEQUENCE DESCRIPTION:
GATCTGTTTC GTGCATTGGA AGACCCACCC CAAGCTTGGC AGNCGAGCNN ATTGTATCCT 60
GGGGCTCCCT TCATCTCCAG GGAGTCCNNT CCCCggccct ACCAGCGCCC GCTTGGCTGA 120
45 GCCCTACCC CACACCAGGC CGTCTCCCG GGGCTCCCT TGGAAACCTG CCCTGCCTGA 180
GGGGCCCTCT GCCCAGCTTG GGGCCAGCTG GGCTCTGCCA CCTACCTGT TCAGTGTCCC 240
GGGGCCGTTG AGGATGAGGC CGCTAGAGGC CTNAGGATGA GCTGGAAGGA GTGAGAGGGG 300
ACAAAACCCA CCTTGTGGA GCCTGCAGGG TGGTGTGGG ACTTAGGCCA GTCCAGGGG 360
CAATGTATTG GCCTGGAAGG TGGGGTTTGG GATTNNGGG GCTTGGTGCC AAGCTTTCCT 420
50 TTTNNANGNT GACCTTTNTT TNGTNCCTNC CCCTTGGGG NGGGNTNAAA AGNCCCAAGT 480
TTGANANTGG GAAATAAANT TTTTGGGC CTCCGNTTT CCCTTAAA 529

55

SEQ ID NO:4238

SEQUENCE LENGTH:365

SEQUENCE TYPE:nucleic acid

5 TOPOLOGY:linear

CLONE:HUMGS05039

SEQUENCE DESCRIPTION:

GATCGTTTTC TGATTTGIAT GCTTCACAAA CTTGGATTG ACAAAGAAAA TGTTCATGNN 60
 10 NGAATTGCGA CAGTGTATTC GCAACTNTCC TCAGTTCAGA TTTGACTGGT TTCTTAAGTC 120
 CAGAACTGCA ATGGAGCTCC AGNGGAGATG TAATACCTTA ATTNCTTTGA TTGAAAGAGA 180
 AAACATGGAA CTAGAAGAAA AGGAGAAGGC AGAGAAAAAG AAACGAGGAC CAAAGCCTTC 240
 ANCACAGAAA CGTAAATGG ATGGCGCACC TGATGGTCGA GGTAGAAAAA NGTGGCTGGA 300
 15 ANCTATGNNT ATGGTTTNT TTCATAAATC ACTNAGCTTT ANACCNAGTA GTTCCTNTNA 360
 NTTTN 365

SEQ ID NO:4239

SEQUENCE LENGTH:114

20 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05040

SEQUENCE DESCRIPTION:

GATCATTACA ACANTTGNT GCCTCCAAGT CCTTGAGGCA GCAAGTCTGG GGCTTCTGTN 60
 25 TCNTTTGAGG GTGTCTTCTG GGTAGAGCGA TGGGAAGGAA GGACCCTTAC CCNN 114

SEQ ID NO:4240

SEQUENCE LENGTH:312

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05041

SEQUENCE DESCRIPTION:

GATCATCCGC GCGGCCCGG CTCGTGGGGC GCCTGGAGTG AGGGTTCTGG TTCCCGCCGG 60
 35 CGAGGATTGT TAAAAATNAGT CTTCGGAAGN AGACCCCTAG TGACTTCTTA AAGCAAATCA 120
 TCGGACGACC AGTTGTGGTA AAATTAAATT CTGGAGTGGA TTATCGAGGG GTCCTGGCTT 180
 GCCTGGATGG CTACATGAAT ATAGCCCTGG AGCAGACAGA AGAATATGTA AATGGACAAC 240
 TGAAGAATAA GTATGGGGAT GCATTTATCC GAGGAAACAA TGTGTTGTAC ATCAGTACAC 300
 40 AGNAGAGACG GN 312

SEQ ID NO:4241

SEQUENCE LENGTH:306

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05042

SEQUENCE DESCRIPTION:

GATCGGAGTA CANAGTNACA NTTGGAGGGC AGGGGGACTN TAAGGCAAGG AGATTACAGT 60
 50 TGGGAAGGAG GCAGTGGCAG AGGGGTGAGG GACAGGGGCC CTTAAGTCCA GCGAGGAAAG 120

55

EP 0 679 716 A1

CTCGGTGTGG GCCCGTCTAC GCTCCGTTTG GGGTGACCTG GAACGCCTCT TCTACAGCTC 180
 CTNCAGCATC AGCAGCCTCT TGTCAAGTTT TGCCTCGCCC ANTCTATCCC AACCCAAATA 240
 AGACACTTTC TTCACGNCAT ATTATCTTTG TCCTTTCTTT TTTAAGAACA TCACAAAACC 300
 ATGAAA 306

SEQ ID NO:4242

SEQUENCE LENGTH:287

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05043

SEQUENCE DESCRIPTION:

GATCTTAAAC CCAGTCTTGA CAGACTAGAA GTTAAGTTTA ATACAGAAAA TGTCCTGTTC 60
 ACTTGAAGA AAAGACCTAC TTTTAAATG GACACTATCT TGGTTCITTT TTTTAAAGTC 120
 ATCTTTTGT TATAAGTGAC CTTTGTCTGG AATGTCTGAA AAGTAGTTAA TGCTTTTNGG 180
 TATTGAAGTA ATGGGTAACT AAAATGGACT TCCATAGTAT TGACTGTAGA AGGAGCCTCT 240
 ACAATATTGA CTATATATNN NNATAAACTA CTGGCAAGGN ACTTAAA 287

SEQ ID NO:4243

SEQUENCE LENGTH:324

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05044

SEQUENCE DESCRIPTION:

GATCTCCACT GTTGGGTGGG TGGGCCCTGC CGGGACCCTG CTTACAGGC AGGCTTTTCC 60
 TCCAACCTGT GGCCTGCAG CAGGGCAGGA AGGGGAAACA CAGCTGATGA ACTGTGGTGC 120
 CACATGACCC TTGTGGCACA GATGCCACG TATGTGAAAC ACACATGGAC ATGTGTCCCA 180
 GCCACAGTGT TATGCTCTGT GGCNGGCTCA CCTTTGCTGA GTTCCGGGGT GCAATGGGGG 240
 AGGGAGGGAG GGAAAGCTTC CTCCTAAATC AAGCATCTTT CTGTTACTTG ATGTTCAATA 300
 AAAGAATAGT TGGAAGGCT GAAA 324

SEQ ID NO:4244

SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05045

SEQUENCE DESCRIPTION:

GATCATTCAT ATGTGTACAT AAAATTTTAA AAATAAAGGG AATTGACTGC TTTGTTAATG 60
 AGAAA 65

SEQ ID NO:4245

SEQUENCE LENGTH:288

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05046

SEQUENCE DESCRIPTION:

GATCCAGAGA ATGAATCCCT GACCGCATCA CCTAAACTGT CTTCCAAACA TGAGACAAAG 60
 CTGACTGTTC ACACTGATTG CCCAGCACAT ACCGTCTTGC CAGTTTCTTC TTTTCTCCCA 120
 GTCTCCTGTT CATCCATTCT GTTCTCCCTT GGGGTGGGAA TCTATGATGG AGGTTACTGG 180
 5 GGAAACAGCT CAGCAGATT TTGGAGACCA AACCAAAGGT CTCACTAGGA AATTATCTG 240
 TTTTAAACA TTGCTTCCTT CCTGGCTCTG CTAAATTGAA TGCTCATN 288

SEQ ID NO:4246

SEQUENCE LENGTH:333

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05047

SEQUENCE DESCRIPTION:

15 GATCTCTGCT CCTAACGATG AAGACTGGGC CTATTCACAG CAGCTCTCTG CCCTCAGTGG 60
 TCAGGCGTGC AATTTTGGTC TCGCCACAT AACCATCTG AAGCTTTTAG GCGTTGGAGA 120
 GGAACTTGGG GGAGTGTAG AACTGTTCC AATTAATGGG AGCTCTGTG TTGAGCGAGA 180
 AGACGTACCA GCCCATTTGG TGAAAGACAT TCGTAATAT TTTCAAGTGA GCCCGGAGTA 240
 20 CTTCTCCATG CTTCTAGTCG GAAAAGACGG AAATGTCAA TCCTGGTATC CTTCCCAAT 300
 GTGGTCCATG GTGATTGTGT ACGATTAAAT TGN 333

SEQ ID NO:4247

SEQUENCE LENGTH:288

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05051

SEQUENCE DESCRIPTION:

30 GATCCTCCAC AGAGAGGAGG GGACCAATTC TGGACAGACA GATGTTGGGA GGATACAGAG 60
 GAGATGCCAC TTCTACTCA CCACTACCAG CCAGCCTCAG AAGGCCCCAG AGAGACCCCTG 120
 CAAGACCACG GAGGGAGCGA CACTTGAATG TAGAATAGGC AGGGGGCCCT GCCCACCCN 180
 ATCCAGCCAG ACCCCACGNT GACCATGCGT CAGGGGNCTA GAGGTGGAGT TCTTAGCTAT 240
 35 NCTTGGCTTT NAGAGCCAGC CTGGNTCTGN CCNCTCCNC CATGGGGN 288

SEQ ID NO:4248

SEQUENCE LENGTH:170

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05052

SEQUENCE DESCRIPTION:

40 GATCTCTAAG TGACCACCAG GGGCTCTGAA CTGCAGCTGA TGTTATCAGC AGGCCATGCA 60
 TCCTGCTGCC AAGGGTGGAC ACGGCTGCAG ACTTCTGGGG GAATTGTCGC CTCCTGCTCT 120
 45 TTTGTACTG AGTGAGATAA GGTGTTCAA TAAAGACTTT TATCCCCAAA 170

SEQ ID NO:4249

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS05053

SEQUENCE DESCRIPTION:

GATCTACATA GATTTGGAAA CTGTTTTCCT CTGTTTGGT CTCTGGGCA ACATTTTGG 60
 CCCAAGTTTG GGCAACATTT GGCCCAAGNT TGGGCATTTT GGCAGTAGCT GTATGGNAGA 120
 AAAAGAGTAA GAGGAN 136

SEQ ID NO:4250

SEQUENCE LENGTH:100

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05054

SEQUENCE DESCRIPTION:

GATCNTTTGC TTTAGNGTGT AAAGTNTGTC TCTGAACAGA ATTATTTGTA AAAGTTAGGA 60
 GTTCTTTTTT AAATCATTA AAGAGGCTTG NTGAAGGAAA 100

SEQ ID NO:4251

SEQUENCE LENGTH:204

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05055

SEQUENCE DESCRIPTION:

GATCCTAGAG CCCTTCACTT CGGNTTACTC CCTCTTTTT GCCTCTNTTT NTAGTTGGA 60
 AGAAATAAAC TCACAAATTA TGGTGCAGTA ATTNCCGGG GAAAGTAAAG CCTCAGGAAT 120
 GCCCACGCCT TTTTCCAAA GCCTTTNTCT CTGAGACCTC TTAAGTTCTA AGATTAATG 180
 CCCCTCGCTG TTTCTCTCT GAAA 204

SEQ ID NO:4252

SEQUENCE LENGTH:310

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05056

SEQUENCE DESCRIPTION:

GATCAAGGAG CAATTATGAA GGTCTACAAG CAAGANCAAG AGGAAGAATT ATNGAAAAAG 60
 TTGGCAAATG NCCCAGATG GAAGAGATAC AGGAGATGGA TGAAGAATGA AGGGCCTGGG 120
 CGGTAAACAT TTGTGGATGA CTGANGATTG ATGGAATGCT ACTATGCCAA ACCTTAATTG 180
 TGATATTATT TTCATAACTG ANTTATTTTA GAAATGTATC ANINGACTGC TGCTCAGCAG 240
 TAACTAAAAT TCCTCAAGTA TTTGATTAAA CAGATTAATG TCAAANTTTA AACCTTCCCT 300
 TAAAACTTTN 310

SEQ ID NO:4253

SEQUENCE LENGTH:267

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05058

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

GATCTAATTG CATTGGTTAA AAGCAGCTAA CCAGGTCTTT AGAATATGCT CTAGCCAAGT 60
CTAACTTTAT TTAGACGCTG TAGATGGACA AGCTTGATTG TTGGAACCAA AATGGGAACA 120
TTAAACAAAC ATCACAGCCC TCACTAATAA CATTGCTGTC AAGTGTAGAT TCCCCCCTTC 180
AAAAAAGCT TGTGACCATT TTGTATGGCT TGTCTGGAAA CTTCTGTAAA TCTTATGTTT 240
TAGTAAAATA TTTTTGTGA TTCTAAA 267

SEQ ID NO:4254

SEQUENCE LENGTH:307

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05059

SEQUENCE DESCRIPTION:

GATCANAACT CAAACGGGCC GGNNTTCTA AGGTGTNGGT ATGTGGGGAG TGGTACAAAA 60
TGGTCTGATG CTCCTTCAA AACATTCAC TTTTACAACG TCAAGGAATT AAGCATAAAA 120
AAGATTGGTT AAAAGCTTTG GTTCTAGTA AAGGTTAGTG TGTGTGGTTT TTTAAGAAG 180
CTGTNTTGCT AAATNATTTT TACTTGGAAT GTTCAAACA GATTCAGGC TGCAAACTTG 240
TTNATAATC GTNNGCTTCT CCAAGTGAAG CTTCAGGAAT ACCTGGAAAA TAGCTGTAAC 300
GTTCCGN 307

SEQ ID NO:4255

SEQUENCE LENGTH:297

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05060

SEQUENCE DESCRIPTION:

GATCTAATAA AAATTGAAAT ATGCCTTTTA GAATGGCTTT CAAAGATAAC AAATGCTGGA 60
GAGGATGTAG AACAACGGGA ACCTCTCGGT TATTGCTGGT GAGACAGCCG CTTTGAAAAA 120
GTTTGAGTTT CTTACAAAAT TAAACTTACA CTTACACTTA CCATATGACC CAAAAATTCC 180
ACTGCTTGCT CTTTACTCAA GTATAAGGAA AATCTATGTA CACACAAAAC TNGTACGTGA 240
ATATTTATTA ATAGTCATTT TATGCCCCAA ACTAGNAATA GTCCAAATGT TCTGGGN 297

SEQ ID NO:4256

SEQUENCE LENGTH:208

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05061

SEQUENCE DESCRIPTION:

GATCTNTATT NTTTTNGCAA CAGACTTCAA GTGGTCCCTC TTTTTCCT ACACACTCAG 60
CTCTTCTCTA AAAGCAAGGA TTTGGAATGA NCAATTCAGT TTGACAGAAA AAGCTGAATA 120
AAATGGCATC TGTAAATTGAN TTGTTGGAAA TGCCTTTTNN GCTCCTAAAT NTTAAACATC 180
ATTAATAAAA TANTGTTTCA CAAAGAAA 208

SEQ ID NO:4257

SEQUENCE LENGTH:208

SEQUENCE TYPE:nucleic acid

EP 0 679 716 A1

TOPOLOGY:linear

CLONE:HUMGS05062

SEQUENCE DESCRIPTION:

GATCACAGGA AGACTTTGTA AGGACAGTTT AAGTTCTCCT GCAAGGTTTA ATTTGTTATC 60
ATGTAAATAT TCCAAAGCAG GNTGCCCTGT GGTTTTGGCC AGCCTTGTGC TATGTTGATA 120
AGATTGATTT ACTGCTTAAA ATCACTTTAC TTTATCCAAT TTTTACTGAA CTTTTTATGT 180
AAAAAAATAA AATCAATTAAGAACAAA 208

SEQ ID NO:4258

SEQUENCE LENGTH:126

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05063

SEQUENCE DESCRIPTION:

GATCAGTTTT CTATTTTAAT GTGTAAAAAA AATAACTTGT CGTATCCCAT TTAAAGGCCA 60
ATTTCTGTAT TCAGGCAGGC ATATGTACAT ACATGAATAA AGCCAACAAA AGTGTGCACA 120
TGTAATA 126

SEQ ID NO:4259

SEQUENCE LENGTH:552

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05064

SEQUENCE DESCRIPTION:

GATCGGGGTG CCCCTCAGCC TTCAGACACT CTGAGCCCCA GANGCAGCAA AGGGTGAGCC 60
TCCTGCCTTG GTTCTACCA CCATCTGGTG GTCAATGGCG GGACTGCAGT CGGCCAGGGA 120
CTGCGGTTGA CCTACACCTT CCTCCCTGA GACATCAGCT GGCATGCCTC CAAGCCCTCT 180
GCGCATGCCC TCATTCTCTC CTGCCCCCTG GCTGACTTGT CATGTTGACT TGAACCCCTC 240
TGGGGAATCT NTGTGCATGT CCACAGCCCC TGGTTATGCT CTCACAGCCA CTGCCCCNT 300
CTNTGTTTCTG GCTGAGCTGG CTGACCGACC CAATCCCNCT AACCAGGCTC TGCCCGNTGA 360
NCCGGTGGTT GAGAAGCCCG AAGTCTNAGG GGGCCAGCAA GGCCCAACC NCAAGGNAGG 420
CAATTGCTTG CNGGACCCCA AGGGGNCNGN TNGCCAATGG GGGTGNACTT TGCCGGGCCA 480
AAGGGGNTNN GAATTTCCGG CNCTTAAGTN GTNACCCTC AANANNAANG GGGCAAACGG 540
GTTTNGNAAA AN 552

SEQ ID NO:4260

SEQUENCE LENGTH:180

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05065

SEQUENCE DESCRIPTION:

GATCAGACCT TCTTGGGGTC TTCTGGCCAG AGCTTGTCAC CAGCCCCATG GCCTCTCCAG 60
GCGTGCTCAT GCCCAACACC CGCGGCCAGC CCCACGTGGT GCCGCTCAGC CTTCTCTGCC 120
CCTCCTGGGA ATCTGTCATT CGTGGGTGCT TCAGAGTAAA ATCAATGAGT TTCTGAGAAA 180

EP 0 679 716 A1

SEQ ID NO:4261

SEQUENCE LENGTH:553

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05066

SEQUENCE DESCRIPTION:

GATCAGCGTG CGGGGTGTGA AGATAGGCGT CAAGGCCGAT GACTCCCAGG AGGCCAAGGG 60
 GAATAAATGT AGCCACTTTT TCCAGTTAAA AAACATCTCT TTCTGCGGAT ATCATCCAAA 120
 GAACAACAAG TACTTTGGGT TCATCACCAA GCACCCCGCC GACCACCGGT TTGCCTGCCA 180
 CGTCTTTGTG TCTGAAGACT CCACCAAAGC CCTGGCAGAG TCCGTGGGGA GAGCATTCCA 240
 GCAGTTCTAC AAGCAGTTTG TGGAGTACAC CTGCCCCACA GAAGATATCT ACCTGGAGTA 300
 GCTGTGCAGC CCCGNCCTTC TTGGGGTCCC CCCAGCCCCT NAGGGCCAAG TTGCCAGGGA 360
 CAAGCTTGGC TTGCTGGACA AGGGATGTTG GCAACTTGNT TTNAGGGAGG GGGGCAACTT 420
 GNCCAACCGG CCANNNGGNN CAAAGGGAAA GTTNGGGGGG NCCCGTTTGG NCCAANGGGT 480
 TAGGGGGAAG GGGTTGGGGG GNAATTNGGG GNGGGNGGGG AAATTNCNA GTTTTANTTG 540
 TTAATTTTTT AAA 553

SEQ ID NO:4262

SEQUENCE LENGTH:314

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05068

SEQUENCE DESCRIPTION:

GATCTCCCGG ACCCCTGAGG TCANATGCGT GGTGGTGGAC GTGAGCCACG AAGACCCTGA 60
 GGTCAAGTTC AACTGGTACG TGGACGGCGT GGAGGTGCAT AATGCCAAGA CAAAGCCGCG 120
 GGAGGAGCAG TACAACAGCA CGTACCGTGN GGTCAAGCCTC CTCACCGTCC TGCACCAGGA 180
 CTGGCTGAAT NGCAAGGAGT ACAAGTGNA AAGCTCTCAAC ANAGCCCTCC CAGCCCCCAT 240
 CGNGAAAACC ATCTCCAAAG CCAAAGGGCA GCCCCGAGAA CCACAGGTGT ACACCCTGCC 300
 CNCATCCCGN GACN 314

SEQ ID NO:4263

SEQUENCE LENGTH:176

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05069

SEQUENCE DESCRIPTION:

GATCCAGGGA ACAATGACTA TAGGTGAGCA GATGCTTTAA ATTAAGGAAA GATGGAGAAG 60
 AAGCCAACTA GGAAATTAGA GAACACAGCA AGCAAAGAGA AGCAAGCGAG TCCCCTTGAG 120
 TGATGCCAAT ACTTTTTTTT TTTTTTTT NGANANATT TNTNNCCANT NTGGTN 176

SEQ ID NO:4264

SEQUENCE LENGTH:389

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05070

SEQUENCE DESCRIPTION:

GATCTTTNAG GAAAGACGGA TTGCNTTAGA AATAGACAGT ATATTTTNG TCACAAGAGC 60
 CCAGCAGGGC CTCAAAGTTG GGGCAGGCTG GCTGGCCCGT NATGTTCTC AAAAGCACCC 120
 TTGACGTCAA GTNTCCTTCC CCTTTCCCA CTCCTGGCT CTCAGAAGGT ATTCCTTNG 180
 TNTACAGTGT GTAAAGTGTA AATCCTTTTC NTTATAAAC TTTAGAGTAG CATGAGAGAA 240
 TTGTATCATT TGAACAATA GGCTTCAGCA TATTNTAGC AATCCATGTT AGTTTGNAC 300
 TTTCTGTTG CCACAACCCC TGTTTTAAT ACTGTACCT TANTTAAAT TCNNGGTTN 360
 TAGTTTTTG CAACAGGTTT TTTCCCAA 389

SEQ ID NO:4265

SEQUENCE LENGTH:436

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05071

SEQUENCE DESCRIPTION:

GATCACCATG AAAGAAGAAT AGTTTTTGT CCCAGAGAC ATTCATTTAG TTGATATAAT 60
 CCTACCAGAA GGAAGCACT AAGAAACACT CGTTTGTGT TTTAAAGGC AACAGACTTA 120
 AAGTTGTCCT CAGCCAAGGA AAAATGATAC TGCAACTTTA AAATTTAAAG TATCTGCAC 180
 TGATAAATAT ATTTAANANT TGTATGTTA TAAAGTTATT AATTTGTTNN GNCNGTGTTA 240
 CAAAATGTTT AGTTTATATT GTTTTAGATT GTTTTGAAT TTTAAAGGT GTAAAATAAC 300
 ATATTTNTCC TTTATGGNNA TCTATAAAC TTTCTGGTAG TAAATGTTT TCATTTTAC 360
 TGGGTATATT ATTTGCTTC ATGNTTTTG TNNCCNTCCA TAAGGNTTN NTGCCAGNTT 420
 TTTTTTTNN CAGGN 436

SEQ ID NO:4266

SEQUENCE LENGTH:533

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05073

SEQUENCE DESCRIPTION:

GATCTGTCCC CATCCGAAGA GGCTTTGTGA ACTGCCTGCT GAATGGAAGG AAAGCAACTT 60
 TAAACATTT AGAGTTTTC TGAGTATAGC CAAATGCCTG TNCTGAACT TATAGGAAAT 120
 TGGAATTTTG TTTAAATTT TACACTTAA GGTAGCAAAT GTCAATTATT NGNCCGAGCA 180
 TATTGTGAAG AATTAACTA AAATTAATAC GTACAGTTT CTCTAATTAG GTGACTGTT 240
 ATAATGGGTA TATTTGGAAT TTAGAAGAAA TAATTTGTA GNACTTGTGG CCCTTATGTT 300
 TAACAGATTA ATTCAGCATT GCGTATTTN CTTGTCCCA ATACAAGGAT GCCAAAGGAG 360
 GGAAACAGGA AAAATTGCCG TCCCATTTT AAAAATTTA GGGGTTTGGN TGGTTTAAA 420
 CCCNTAAAT TGTTTCCAN GGANCNTTT TTTGGGGACC TTNCTAAAT TTTGGGGGN 480
 CATTTTNAAN TTAAAGGNAT TGNNGGNNC NAAGGNNGTN TTTGANTTN TGN 533

SEQ ID NO:4267

SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05074

SEQUENCE DESCRIPTION:

GATCAAGGAA GAGATGGAGG CTTTCCCCGA AAAGTTCTAG CTGAGTGGCA GAAGTGAGAA 60
 TTTGTAAACT TATGTACAAT GTACGTGTAA ATAAATGGAT TGAATTCAG TTTGTCATCA 120
 GAAA 124

SEQ ID NO:4268

SEQUENCE LENGTH:451

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05075

SEQUENCE DESCRIPTION:

GATCTGGGAC AGATTCTACT CTCACCATCA CCAACCTGCA GCCTGAAGAT TTTCCAAC TN 60
 ATTACTGCCA ACAGTATGAT AGTTACCCGC TCACTTTCGG CGGAGGGACC AAGGTGGAGG 120
 TCAATCGANC TGTGGCTGCA CCATCTNTNT TCATCTTCCC GCCATCTGAT GAGCAGTTGA 180
 AATCTGGAAC TGCCTCTNTT GTGTGCCTGC TGAATAACTT CTATCCCAGA GAGGCCAAAG 240
 TACAGTGGAA GGTGGATAAC GCCCTCCAAT CGGGTAACTC CCAGGAGAGT NTCACAGAGC 300
 AGGACAGCAA GGACAGCACC TACAGNCTCA GCAGCACCC T GACGNTNAG CAAAGCAGNC 360
 TACNGAAAC ACANAGTNTA CGGCTGCGAA GTTNACCCCN TCAAGGGCCT TGAGCTTNGN 420
 CCNGTCACAA AGGNGNTT N AACAGGNGG N 451

SEQ ID NO:4269

SEQUENCE LENGTH:197

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05076

SEQUENCE DESCRIPTION:

GATCTAGAAA CTGAGTTGTG GAGCTGACTC TAATCAAATG TGATGATTGG AATTAGACCA 60
 TTTGGCCTTT GANCTTTCAT AGGAAAAATG ACCCAACANT TCTNAGCATG AGCTACCTCA 120
 TCTCTAGAAG CTGGGATGGA CTTACTATTC TNGTNTATAT NGNAGATACT GAAAGGTGCT 180
 ATGCTTCTNT NATTA TN 197

SEQ ID NO:4270

SEQUENCE LENGTH:69

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05077

SEQUENCE DESCRIPTION:

GATCCCATCC CCTTGTCTGA ACTGGAGCCA TGGGCACAAA GGGCCCAGAT TAAAGTCTTT 60
 ATCCTCAAA 69

SEQ ID NO:4271

SEQUENCE LENGTH:54

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05079

SEQUENCE DESCRIPTION:

GATCTTGCCT CCCATCAGCC ATCTTTCTCC CAATAAATTT TTGTTTTGTG CAAA 54

5 SEQ ID NO:4272
SEQUENCE LENGTH:103
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS05080

SEQUENCE DESCRIPTION:

GATCTAACCA ATTNAATAT GANTTCATAC TCNAAAGTAT CAACAAAAAA ATGAAAAGAA 60
ATAGCTGGTT TGGNTGTAAG AAATGGTGTA ATTAATGGNT TTN 103

15 SEQ ID NO:4273
SEQUENCE LENGTH:449
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
20 CLONE:HUMGS05081

SEQUENCE DESCRIPTION:

GATCACTGCT GGCCTACTCT GGTACGGGG AACTGACGC CCGGGTCACC GCTGCCATAG 60
CCAGTAACAT CTGGGCCGCC TACGACCGGA ACGGGAACCA AGCGTTTAAT GAAGACAATC 120
TCAAATTCAT CCTCATGGAC TGCATGGAGG GCCGTGTAGC CATCACCCGA GTGGCCAACC 180
25 TTCTGCTGTG TATGTATGCC AAGGAGACCG TGGGCTTTNN NNTNCTCAAG GCCAAGGCCC 240
AGGCTTTGGT GCAGTACCTG GAGGAGCCCC TNACCCAAGT GCGGCATCT TAACGGCATT 300
GGTGAAGCT GGGGGTCAGA AAAGAGAAAT GACCCATTG NGAGGGGCTG GGGGNCCTCC 360
TAGGAAGAAC CTTTNTTAGG ACAATGGGGG GNAAGGGATG GGACTTTTNN TTTTTTCCC 420
30 AAGNATTAAG ACTTNAACT CCCTGTAAA 449

SEQ ID NO:4274
SEQUENCE LENGTH:247
SEQUENCE TYPE:nucleic acid
35 TOPOLOGY:linear
CLONE:HUMGS05082

SEQUENCE DESCRIPTION:

GATCTNCATA ANCAGGGTTC CTGAGCTCAC TGAAGAGACT ATTGTCCCTT AGGAAAAGCA 60
40 TTTCCTGTGT NTCGTNAGCA TCTGGCTCCA GGACAGACCT TCAACTTCCA AATTGGATAC 120
TGCTGCCAAG AAGTTGCTCT GAAGTNAGTT TCTATCATNC TNCTCTTTGA TTCAAAGCAC 180
TGTTTCTCTC ACTGGGCCTC CAACCATGTC CCCTTCTCCT NAGCACCACA AATAATCAAA 240
ACCCAAA 247

45 SEQ ID NO:4275
SEQUENCE LENGTH:424
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
50 CLONE:HUMGS05083
SEQUENCE DESCRIPTION:

55

5 GATCATTTC CAAGATTGGT TTCCTTGAG TTTTGCTAA AACAAATCTT AGTAGTTTG 60
 CCGGTTTAAA ACAACTCACA ATCGTAAATG CTAATATCC TAAGATATCT NACCTTTTNA 120
 TTTCAAGTTA GCCATGTATT GTATGAGTGT ATTAGTCTAA GCAGTGAGAA TCTTTNCTAT 180
 GCCTCTATT CAGCAAAAAG TAGAAGTATC AAATAAAANG GGCAACTTTT AAAATATTAA 240
 GCCTGAAGAC TTCTAAAANG ACANGANACA TGGCCTAANT ANCCAACATA GGATTACAT 300
 AGTANGTTTC AACTACCTT ATTACCAAAA GCAAACCACC TCTTACTTTT NNNCTACATT 360
 TATCCATGTA TATCTNNGT ATGCTGGTCT TTTNCTTTT NGCCAAANTC NANCATTTT 420
 10 TGNN 424

SEQ ID NO:4276
 SEQUENCE LENGTH:308
 SEQUENCE TYPE:nucleic acid
 15 TOPOLOGY:linear
 CLONE:HUMGS05085

SEQUENCE DESCRIPTION:
 20 GATCTAAAC TTCTGTTGCT TTTGCCATTC CAAAACCTTG TCTTTGCCAG AAAAGTGTTG 60
 GTAACATAA AGAAAATTAT ATATGANCAC GGCAGTTTGC ACTGTGTTG AGTAGAACGT 120
 GTAAATGAAT TGTNCCCACC TTTGGTTTGC CAGTAAGTGA CTGGATTCTT GGCACATTAA 180
 TGTTCACCAA AGTAGACAA GAAGATATTA TTNCTATTAA TCAAGCAAAA GGAATTTTAA 240
 GATTTTNTT TTNCNTTAAA ACCAANTTGG GATTTTNNNN TTTNNTTTN TTTGGGGGAA 300
 25 AAGGNTTN 308

SEQ ID NO:4277
 SEQUENCE LENGTH:374
 SEQUENCE TYPE:nucleic acid
 30 TOPOLOGY:linear
 CLONE:HUMGS05086

SEQUENCE DESCRIPTION:
 35 GATCGAGTCC GCCATGGAGA GGGACCGCTA CATGAGCCCC ATGGAGGCCC AGGAGTTTGG 60
 CATCTTAGAC AAGGTTCTGG TCCACCTCC CCAGGACGGT GAGGATGAGC CCACGCTGGT 120
 GCAGAAGGAG CCTGTAGAAG CAGCGCCGGC AGCAGAACCT GTCCCAGCTA GCACCTGAGA 180
 GCTGGGCCTC CTCTCCAGAN TCATGTGGAG GGGCCAGAGG CTGCCAGACC CCCAGCTGGG 240
 CCCTGCTCAC CCCTTGTTC TGGGCTTGGG GGGGCCNTT GAGGAACCTT TAATTGTCAG 300
 40 GGGTGCCCGN TATGGACGGG GCATTNCAGC TGAGACACTG TGGATTTTAA ATTAATCTT 360
 TTGTGGTCTT TAAA 374

SEQ ID NO:4278
 SEQUENCE LENGTH:510
 45 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05087

SEQUENCE DESCRIPTION:
 50 GATCTGTGCT TTCCAGCTCA CCCCCACAC TCACTCCTGA GACCCCTGGC CTCCGGCGTC 60
 ACNTCCAGCN TCTGTTCCCC TAGTAAGTGC CTTCCATGTC GGCTCTAAC CCCAGGCCCC 120
 GAGGACCCAG ACCCAGTGGG GAGGCGGACG TTCCAGCCGG CATGGNTGGG AACTGCAGAC 180

55

EP 0 679 716 A1

CTGTCTCCT GGTGGGTCCA GGGGCCCCCTC CAGCTTGTGG AGCCCCACAN TGGGGTGCCG 240
 CCTGCCCGTT TTTTCCCAT GGAGCCCCAG CCCCTTTGG GCCCAGGGAC ACCAGCCAGG 300
 CTCTGTGCTG ACCCTCCTGT TGCACCCAGN CCTGGTNTCA GCAGCGACCA CCCCTTGCNT 360
 5 TCACCCTTTG GAGCTTTTGC AATGTTTCCA NTAAANCCCN GGGNTGGGTT NGGNAAGGTT 420
 GGGAGGTTGT TAAGTTGTT TNGGTGNNCT TTTTGAAAGG GGNAGGATNA ATTAACCTTG 480
 ANCCNNTGGG GCGGNGNGNC TTTTNGGNTN 510

SEQ ID NO:4279

SEQUENCE LENGTH:466

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05088

SEQUENCE DESCRIPTION:

GATCTAGCTT GGAGAGCTTG TGAATCTTAG GAGAGCTAGG CATAGAATGA CTAAAGTTTG 60
 TCACCGCATG AGATAAAATA AATGAAAAGC CACTTCTGGA GGAATGAGG CAGTCTGCCT 120
 TTNTTGGAGA GATACATATT GTTGAACAGC TCTGGGCAGT TGATTGTTTG CCTGGGAGAG 180
 20 CTAACCATGT TTACTCTACA CTTGACCTGT GATGGTCTGT ATTGATTGTN TCACACGCTT 240
 AGCTTTCTAA GGCTAACCCAG GTCATCGTCC TCAGTCCCTG CCTGCAACTA GGTGCGCAAC 300
 TGGCCCTTGA TTTCCACCC AACTTGTTC GTTTGGCCCTC AATCCTGGGG CCTCACTNAT 360
 TTCCCCAAA NGATATGGTT TGGTACCACC TGTAGTTTNC CTGTTGCATG GTTAAACCTG 420
 ACTTTTGGG GAAACTNAAA ATANAACANT TTTTCAAAAC GGGAAA 466

SEQ ID NO:4280

SEQUENCE LENGTH:470

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05089

SEQUENCE DESCRIPTION:

GATCGAGCCA CTGCTGAAGA ATGTCTAAAG CACCCCTGGT TGACACAGAG CAGTATTCAA 60
 GAGCCTTCTT TCAGGATGGA AAAGGCACCTA GANGAAGCAA ATGCCCTCCA AGAAGGTCAT 120
 35 TCTNTGCCTG ANATTAATTC GGATACCGAC AAATCAGAAA CCGAGGAATC CATTGTAACC 180
 GAAGAGTTAA TTGTAGTTAC TTCATATACT CTAGGACAAT GCAGACAGTC TGAAAANGAG 240
 AAAATGGNGC AAAAGGCCAT TTCAAACGA TTAAATTTG AGGAACCTTT GCTACANGAN 300
 ATTCCAGNG ATTTATCTA CTGAGCAATA TTTCCCTTN GAACTTCAAG ATTTCTNCAC 360
 40 TGNANAATTN TTAATNTTN TTTTTTGGG GCCCTCTGG CCAAATTGGN GNCATGTTCC 420
 TTTGNAGGTG GGTAAACCA GTTNTCACT TNCACCAGTC CANNTNTTN 470

SEQ ID NO:4281

SEQUENCE LENGTH:476

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05090

SEQUENCE DESCRIPTION:

GATCTACAGT CACCATATAT ATCAGCAGGA CCTAAGGNAA AAGATTTTGG ATGTTGGGAA 60
 AAGGTTAGAT GTGACTGGAT TTTGCATGAC AGGNAAGCCT GGTATAATCT GTGTGGAGGG 120

TTTCAAAGAG CACTGTGAGG NGTTCTGGCA CACAATTAGG TACCCCAATT GGAAGCACAT 180
 TTCTGTAAAG CATGCTGAAA GCGTGGAGAC AGAAGGAAAT GGTGAGGACC TGC GCCTTN 240
 CCATTCTTTT GAAGAGTTAC TCCTTGAGGC TCATGGTGAC TATGGATTAN GGAATGACTA 300
 TCACATGANT CTGGGCCAAT TCTTAGAATT TNTCAAGNTG CACAAAATTT NAGGCATGTT 360
 TTTTCCNGT TACTATTTTG GGTNTTNTNA AGCAAAAANT TTCAGNCTTC NTAAAAAGCG 420
 GNTTAAAGGG GGNCCTATTG NCCTGTNAAT TTTCCACTNA GGNCAGGTNT TTCTTN 476

SEQ ID NO:4282
 SEQUENCE LENGTH:277
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05092

SEQUENCE DESCRIPTION:

GATCTGAATT GTNCGAAAAG CAGCCAGTGC CTAANTTGTA GCTCCACTTA TGCCAACTGT 60
 ATATATACCT CTCGTGAGCA TAGCAAGTNA TTTANTATTT TNAAGATG GCTAAATCC 120
 TTTTAATGAA CAGCACTAAA GTTATATGTA TTAGAGGAGA ATTATTGANT GANATGGAGA 180
 AAGAGTTCTG AAATTANTAT TTNCATTTGG GCTTTTTTAC AGATAATATT ATATNNCTAA 240
 GTGACCAGAC GAAAGAGAAG GGNGTAGAAA AGGNTGN 277

SEQ ID NO:4283
 SEQUENCE LENGTH:314
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05094

SEQUENCE DESCRIPTION:

GATCCCCAGA CCTCACTTGC CTCTGCCTCC ATCTTGGCCC TGATTCAACC CTAAGATAAT 60
 AGCACAAACA AATTCTNCAT AAAGATATTT TAATTCACCT GTNCCGTGCT ATATGGAGGA 120
 GGCCAAGTCC ATTTAGTGAC ATTNCTNCCC ATAATGTGAG TGGGGAGGAT TGTGGGGAGG 180
 AGGGGCTTTG GGTTCCTGTG TTTGTGCATA TGAAGGGAGA TGGGGGTTAG GTGGAGGAGG 240
 AGAGCAGCGT GGTTAGCTAA GGTATTGCT TTTGTGGCA AATCTAATTA AATGACAGGA 300
 ATCTCTTAC GAAA 314

SEQ ID NO:4284
 SEQUENCE LENGTH:489
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05095

SEQUENCE DESCRIPTION:

GATCTTCATG GAGCTGAATG ACGCCTGGTC GGAGTTTGAG AACCAGGGCT CNCGGCCCT 60
 CTTCTGAGGC CGCAGTGGTG GTGGCTGCGC ACACAGCTCC ACAGTTGGG AGCCGTCGTG 120
 GGACCTGGGT CCCACCGTN AGGACCCCGT GGGCGACAGA GGTGTGGCCA GGGTGGGGCT 180
 CCGAGCCCGG GGTACCGCC CGCCAGCGT TCCAGGCACA TGAAGAGAAA GCATTCCAAA 240
 GCCTCTNATT GTTGTTCCT TTTNTCCTC CCGAAGAACA GCTGATTCAT GCTCCTCCCG 300
 CAATTNTNAC GTCTGTAATT TATTTGGTGT TTCGGGCGTN GTCTCTTGA GCCCGGCAC 360
 GTTNGTGGGG CCCACGGTTG CTTGGCGGTT CAATGGGGCC CTTGGTGTTT TGCACCGGAA 420

CTTTTGTAAG TCAAGTCCG TGGGTTGGTN TTGTTACAAG AATTNAAAAC TAATTTTCC 480
CGNTTGAAA 489

5 SEQ ID NO:4285

SEQUENCE LENGTH:292

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

10 CLONE:HUMGS05096

SEQUENCE DESCRIPTION:

GATCATATTT CCCCTTGGAC ACTTGGTTAG ACGCCTTCCA GGTCAGGATG CACATTTCTG 60
GATTGTGGTT CCATGCAGCC TTGGGGCATT ATGGGTTCTT CCCCCACTTC CCCTCCAAGA 120
CCCTGTGTTC ATTTGGTGTG CCTGGAAGCA GGTGCTACAA CATGTNAGGC ATTCGGGGAA 180
15 GCTGCACATG TGCCACACAG TGAATTGGCC CCAGACGCAT AGACTGAGGT ATAAAGACAA 240
GTATGAATAT TACTCTCAAA ATCTTTGTAT AAATAAATAT TTTTGGGGCA AA 292

20 SEQ ID NO:4286

SEQUENCE LENGTH:173

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05099

25 SEQUENCE DESCRIPTION:

GATCCCAGTG GAGGCTGTAA CCCACCTGCC CCCGCACCAC CCCCCNTGAC CCCTGTTACC 60
GCATTTGTGT GTATTAATGC TGAAGAATTA AATGTTTAAA GAGTTTAAAT TTTGAAGGCG 120
TTTGCTATAT ACAGTTGTCC TGCATTATTA TAAAGAGTTT TCAGGAAGTT AAA 173

30 SEQ ID NO:4287

SEQUENCE LENGTH:307

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35 CLONE:HUMGS05100

SEQUENCE DESCRIPTION:

GATCAGAAAT GTGAAGCACA AATGCTGCTT CTCCCCCTCC TGTTCCCATG TCAGAGATGG 60
AGAAGAAAGC ACAGTGAGCT GTTCACCAGT CCAGCGGTGA CCTCGGAGTC CTTTGTAACA 120
GTGTTTCCAA TANTTTCTGC CAATAAAACA GAATTNNNGT TAGAACCTAT CTGCTGTCCC 180
40 TCAACTAGTG TCTGATAGCT GAGAATGTAA TTCGTTNTN TGTCTATTAG AAAATTAGGC 240
AGGCACCACA GACAGTAGCA ACATAAAGGA ACCTGCTTAG AAGNGGTTTT NATGGGNNNN 300
NNCNCNN 307

45 SEQ ID NO:4288

SEQUENCE LENGTH:244

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05102

50 SEQUENCE DESCRIPTION:

GATCCTTAAA TCTCCATTCT GTTTGTGGTT GCCCCCTCAA CCTCCCCTAC ACCCTTCCTA 60

TTCTTTTCA TTCTTCTGTC AGTTCTGGGA GTAAAGCTCC CAGCATATTT AGATAATAGG 120
 GCAGGGGAAG CACCCTCTTT CTTCTAGAC TGGATTATGC TCACATGCTC CCTTGGCCTG 180
 ACATTTTGT AAATNCTGTG CCCTTTGCTG TAGCTACACT TCAGATTAAA GTAGGAGAAA 240
 5 GAAA 244

SEQ ID NO:4289
 SEQUENCE LENGTH:69
 SEQUENCE TYPE:nucleic acid
 10 TOPOLOGY:linear
 CLONE:HUMGS05103
 SEQUENCE DESCRIPTION:
 GATCAAAGTT GGCAGGGGCT TGGCTGTGCC CTCAGATTCC GCACCAATAA AGCCTTCAAA 60
 15 CTCCCTAAA 69

SEQ ID NO:4290
 SEQUENCE LENGTH:341
 SEQUENCE TYPE:nucleic acid
 20 TOPOLOGY:linear
 CLONE:HUMGS05104
 SEQUENCE DESCRIPTION:
 GATCTTTNAT CCTTTGTTGC AAAAGTGTGG AACTTTTNA NAGCTTGGCA GATTTNAACT 60
 25 CCAGAAGCAC TTTATGAAAT GGTACACTGA CTAATCCAGA AGACATTCC AACAGTTTGC 120
 CAGTGGTTCC TCACTACACT GGTACTGAAA GTNTAATTNN TTAGAGCCAA AAACTGGAG 180
 AAACAAATAT CTGCCACCT CTAACAAGTA CATGAGTACT TGATTTTAAT GGTATAAGGC 240
 AGAGCCTTTN NTTCTCTTC TTGATAGATG AGGCCATGGT GTAAATGGAA GTTCAGAGA 300
 30 GGACAAAATA AACGGAATT CCATTTTTTT NTCAGTGTA A 341

SEQ ID NO:4291
 SEQUENCE LENGTH:395
 SEQUENCE TYPE:nucleic acid
 35 TOPOLOGY:linear
 CLONE:HUMGS05105
 SEQUENCE DESCRIPTION:
 GATCTTAGAG TCACTTTGGA ATAAGNTCTT ACATAAATAC CCCAGCCTT TTGAGAACGG 60
 40 GGCTTGTTAA AGGACGCGTA TGTAGGGCCC GTACCTACTG GCAGTTGGGT TCAGGGAAAT 120
 GGGATTGACT TGGCCTTCAG GCTCCTTTGG TCATAATTTT AAAATATGGG AGTAGAAAAC 180
 AACANAGNNT GGAATGGACT CTTAAAACAA TGAAAGNGCA TTTATCGTTT GTCCCTTGAA 240
 TGTAGAATTT TTTTGTGATT TCATAATTCT NCTGGTAAAT NTGNCAGTTA AAATGGTGCA 300
 45 TTATGTATAT ATTANTATAA TTTAGANATT CCATTTTATA NTTNTTCCTA TTCCAGGGTN 360
 GCATAANGCA TTTTNNANTT TNGGGGTTTT GGNTN 395

SEQ ID NO:4292
 SEQUENCE LENGTH:349
 SEQUENCE TYPE:nucleic acid
 50 TOPOLOGY:linear

CLONE:HUMGS05106

SEQUENCE DESCRIPTION:

5 GATCATATTT TGCAGTTTGA GTAAAAGGGA AATATTGTTA TACATTTNTT AAATATACTT 60
 CCCCCATGAN GTGAAAAGGT TAATTTTNC TANTGTTTGA AGTTGAAGTT ACTTCATGGA 120
 TGTACATACC ATGANGTGCA TTTGGNTGAG ATAGCNGAAA TTTTTTTTAA AAAAGTTTAA 180
 GTACCAAAGG TAGTCTAGTC TAGAACGATA AGTTAATACG TTTGGCTTT NNTAATTTGT 240
 ACTGTAACAT CCTTATACTT TCTATTTNAA GTATATCTGT TTCCTAAGTA AACAACTTAG 300
 10 ATATTTTCCA CACCTTTTTT TTTTTTNCC CNTGNNGGGT CCNGGGTNN 349

SEQ ID NO:4293

SEQUENCE LENGTH:257

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05107

SEQUENCE DESCRIPTION:

20 GATCTGCCAT TTATTAGCTG TGGGATTTTG GGCAAATTN TTGACTTTCT GTGCTTCANT 60
 TTTCTTAGCT GTAAAATTGG AAGAGTTGTT ATGAAAATNC ACTGAAAGTA TATTTGTATA 120
 CATCATAGGA TAGTGTAGA ATATAGTATG GCTTTGAGAA ATGTTCAATNA TTATNACTCC 180
 CAGAGGAGTT TTAGGTATTA AGTGATGCCA AATATAATTT NTNAATTGTA TAATAAAAAAT 240
 CTATATNCTT ACTGAAA 257

SEQ ID NO:4294

SEQUENCE LENGTH:212

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05108

SEQUENCE DESCRIPTION:

30 GATCACCATC CCAGTAACCT TCNAGTCGGG GGGCCAGCTT GGGGGCCAG AAGCTGCAAA 60
 ATCCGATGAG ACTGCCGCCA AGTAAAGCCT TAGCCCGGAT GCCCACCCTT GCTGCCGCCA 120
 35 CTGGCTGTGC CTCNCCCGTN ACCTGTGTGT TCTTTTATA CATTATCTT CTGTTTTNT 180
 CAAATAAAGT TCAAAGCAAC CACCTGNANA AA 212

SEQ ID NO:4295

SEQUENCE LENGTH:559

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05109

SEQUENCE DESCRIPTION:

45 GATCCAGTGG GGATGTTGTN ATGACTCAGT CTCCACTCTC CCTGCCCCGTN ACCCTTGGAC 60
 AGCCGGCCTC CATCTCCTGC AGGTCTAGNC AAAGCCTCCT ATACAGGGAT GGAAACACGT 120
 ACTTGANTTG GTATCAGCAG AGGCCAGGCC AACCTCCAAG GCGCCTCATT TATGAGGTTT 180
 CTAAGCGGGA CTCTGGCGCC CCAGACAGAT TCAGCGGCAG TGGGTGAGCC ACTGATTTCA 240
 50 CACTGACANT TAGCAGGGTG GAGGTTTGAC GATGTTGGA TTTACTATT GCATGCAAGG 300
 AACACACTGG NCTCAGACGT TCGGCCAAGG GGACCAAAGG TGGNAAATC GAACGAACCT 360
 GTGGCCTTGC ACCNATCTTT TTTTCATCTT TNCCGNCATC TTGGTTGNGC AAGTTTGNA 420

ATNTTGGGAA CCTNGCCTCC TTTTGGTGN TGCCTTGNCT TGAAATAACT TNNTTATTCC 480
 CAAGAGGAGG GNCAAAANTTC AAGTTGGGAA GGTTGGTTTA ACCGGCNTTC CAATTCNGGG 540
 GNAANTCCCN TGGNGGGNN 559

SEQ ID NO:4296
 SEQUENCE LENGTH:50
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05110
 SEQUENCE DESCRIPTION:
 GATCTCTATG TATGTGTGTA TATAATATA GTTTTTTATC TATATATAAA 50

SEQ ID NO:4297
 SEQUENCE LENGTH:548
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05111
 SEQUENCE DESCRIPTION:
 GATCAAACGA ACTGTGGCTG CACCATCTTT NTTCATCTTC CCGCCATCTG ATGAGCAGTT 60
 GANATNTGGA ACTGCCTCTT TTGTNTGCCCT GCTGAATAAN TTCTATCCCA GAGAGGCCAA 120
 AGTACAGTGG AAGGTGGATA ACGCCCTCCA ATCGGGTAAC TCCCAGGAGA GTGTCAQAGA 180
 GCAGGACAGC AAGGACAGCA CCTACAGCNT NAGCAGCACC CTGACGCTGA GCAAAGCAGA 240
 CTACGAGANA CACAAAGTNT ACGNCTGCNA AGTCACCCAT CAGGGCCTGA GCTCGCCCGT 300
 CACAAAGAGC TTCAACAGGG GAGAGTTTAA AGANGGGAGA AGTGCCCCCN ANCTGGNTCC 360
 TCAGTTCCAG CNTGACCCCTC TCCNATCCTT TGGCCTGTGA CCCTTTTTTT TCCACAGGGG 420
 GNCCTACCCN TTTTGGNGGT CCTCCAGCTC ATTTTTTTAA CCTTAACCCC GNTTNNTTCT 480
 TCCTTTGGGG TTAAATTAT TGNTTAATTT TTGGGGGNGG ATTGNTTAA ATTAAGGGA 540
 AINTTTTN 548

SEQ ID NO:4298
 SEQUENCE LENGTH:415
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05112
 SEQUENCE DESCRIPTION:
 GATCAGCGCC TGAGAAGTCG TCGGGCGATG TCCCCGCGCC GTGTCCCTCT CCAAGCNCCG 60
 CCCCTGGGTG GGCTCGGTGG AGCAGACCCC GCGCAAGAGG CTGCGGTGAG CCAATTTAGA 120
 GCCCAAAGAG CCCCAGGGA ACCTGCCGGG GCAGCGGACG TTGGAAGGGC GCTGGGCCTC 180
 GGNTGGNACC GTTCATGTAG CAGCAACCGG CGGCGNNTGC CCAGNAGCAG CGTTCGGTTT 240
 TTTTTTTAAA TTTTAAAAAC TGTGCAATGT ATTAATAACG TTTTTTTATA TCTAAATGGT 300
 ATTCTGCACG AGANGTACA CTGGGTCCCA AAGGTGTAAA AGCTTTTTAA GAGTCATTGT 360
 ATTATAAAAN TNNNTTAAAT CTNTTGGTTG AAATCTTNA GTGNNANAGT ATTN 415

SEQ ID NO:4299
 SEQUENCE LENGTH:156

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05113

SEQUENCE DESCRIPTION:

GATCTAATCT NAGATGTAAA CATTCAAATT NACCCTGTAG ACTNGGGTGA CAAGTTTCGN 60
TTGGTCATAG CTAGTACCTT GTATGANGAT GGTACCCTGG ATGATGGTGA ATACAACCCC 120
ACTNATGATA GGCTTCCAG GGCTGACCAG TTTNAN 156

SEQ ID NO:4300

SEQUENCE LENGTH:310

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05114

SEQUENCE DESCRIPTION:

GATCTTACTT TCATCCAGTC TAATAGGTTT GGAGATTAAA CCTTTNCTCA ACTTGTGCTG 60
TTTATATAGC CAAGCTTCCG TCAATAAGGC TTCATTGTGA CTTAACAAA CATNATCTTC 120
CCACATACCA GGAATATTG GACATTTATT TTACATGGGA AAAATTATTT GGAATAATAA 180
AGCAGNACT TTNCTGANG TTGCAATTTA TACTGTATGG CTNCTNNTTC ATGTTTCATC 240
TAGGTTTTAN GAAGTGAAGT ATANGTAAAT NTNGGTTCTG TAAATNGTGA TGGCGCTGGN 300
NATTACATGN 310

SEQ ID NO:4301

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05115

SEQUENCE DESCRIPTION:

GATCACTCAA GCACAGGATT TTAAGACCAG CCTGGGCAAC ACAGTGAGTG AGACCCTGTC 60
TCTACAAAAA AATTAATAAT TAGCTGGATA CTGTGGTGTG TGCCTGTAGT CCCAGGTACT 120
TGGGGCATTG AGGCAAGAGG TTACTTTNAG CTCGGGTGTT TGAGGCTATG ATGAACTATG 180
ATTGTAGTGC TGTACTCCAG CCTGTGCAAA ANAGTAAAC CTTGTCTCAA A 231

SEQ ID NO:4302

SEQUENCE LENGTH:52

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05116

SEQUENCE DESCRIPTION:

GATCGGGCCA CTGCACTCCA GCATGGGTGA AAAAGTGAGA CCCTACCTCA AA 52

SEQ ID NO:4303

SEQUENCE LENGTH:419

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05117

EP 0 679 716 A1

SEQUENCE DESCRIPTION:

GATCACCAAC AGCCGTCCTC CCTGCGTCAT CCTGTGACTG CACAGGACTC TGGGTTCTGT 60
 CTCTGTTCTG GGGTCCAAAC CTTGGTCTCC CTTTGGTCTT GCTGGGAGNT CCCCTGCCT 120
 CTTTCCCTTA CTTAGCTCCT TAGCAAAGAG ACCCTGGCCT CCACTTTGCC CTTTGGGTAC 180
 AAAGAAGGAA TAGAAGATTC CGTGGCCTTG GGGGCAGGAG AGAGACACTC TCCATGAACA 240
 CTTCTCCAGC CACCTCATAC CCCCTTCCCA AGGGTAAGTG CCCACGAAAG CCCAGGTCCA 300
 CTCTTNGNCT CGGGTAATAC CTGTCTNGNT GCCACAAGA TTTTATTNA TTCTCCCCTT 360
 AACCCNAGGG CAATGTCANN NTATTGGCA GTAAAAGTGG GGGTTACAAA ANCACTAAA 419

SEQ ID NO:4304

SEQUENCE LENGTH:75

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05118

SEQUENCE DESCRIPTION:

GATCTCCCTA GGGCCCCACC TGGACCATT TCCCTCCGTT TTATTTTGT AATTAAATTC 60
 TTCCAAATT GAAA 75

SEQ ID NO:4305

SEQUENCE LENGTH:171

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05119

SEQUENCE DESCRIPTION:

GATCTCAGTT CACTGCAACC TCCGCCTCCN AGGTTCAGGT GATTCCNTTG TCCCAGCTAC 60
 TTGGGAGGCT GAGGCAGGAG AATCAGATGA GCCTGGGAGA TGGAGGTTGC AGTGAGCCGA 120
 GATTGCACCA CTGCACTCCA GCCTGGGCAA CGAGCAAACC TGCNNCTCAA A 171

SEQ ID NO:4306

SEQUENCE LENGTH:309

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05120

SEQUENCE DESCRIPTION:

GATCCCTGGT GTGTTGTGTG GGCCTCTTTA ACGTTTGCCA CTGAGCCTTA ACCTCACTGT 60
 ACTTCACTGT ACTTCACAG CATTGGTGT AACATTTTAA TCTTAGAAGA CCCTGACCCA 120
 CTGAGGGTTT GTTGTGAGAA TTGCTGAAGC CACGTAGAAG CACCTTGAAA TCTGTAAAAC 180
 CACAAGAAAG TACTTTATAA AAGGTATCCT TATTTGAAGT GGATAAATCT TGTAACCTGA 240
 AAAGTTGTGA TTTAGAAGAC AGGATTGTTT TTGAACATTA GGAATTAAG GCTATATCTG 300
 GTCCTTAAA 309

SEQ ID NO:4307

SEQUENCE LENGTH:587

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05121

SEQUENCE DESCRIPTION:

5 GATCTAAAAA CTCATCTTTG GGGTAAAGAG TTAAGTGTCC AAAGGTTGTC ACAGTTCATG 60
 AGGTCAGAGG GAGCTAGCCT GGCACCTGGA CTCTGCCCAT CCACAGCTGA CAGATTCCAA 120
 CAGAAGTGTA TTAAATTCT CCAGTAGACA ATGCTGGGTA AGGGAGGGGN TAGNNCTGGG 180
 TTATTAAGAT ACAGGCTGCT GTATTTTACA TTGGTTGTGG GGGAAAGGGA GCCTGGAGAA 240
 AACAAAGTCA CTATTCCTT TTTTGAAACA GGAAAAAAA TTATTTTGTG TTCAGTAAAA 300
 10 ATGGGTAGGN GAATTCCAAT GTCCTAGCC ACAAGGNC AGTTTCCACT GAGGAAGTGA 360
 ACCAGTGGGG AACTCAAAAT TTCCAGGNAA CATTGGGGGG GAGGGGGAAA ANTTGGGCTT 420
 TTCNCTTAAA TTTGGCAGNT NTTNCCAGT TGGGGNCNGG GNGGGGGGCT CCTGTTTTTT 480
 TTTTTGGGG NTTGTGNTTA NTGNTNNTAT NGTACCGNT TATTTTGGC CCCGGGGTTT 540
 15 TTCTGGGNT TTNTAAAGG TTNCCCAAA NTTTGGGTNA AAACNTN 587

SEQ ID NO:4308

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05122

SEQUENCE DESCRIPTION:

20 GATCCCCCA TCTCTNCAGC ACTCTCTTGC TCCTCTCCCT TTTCATTTC TACTTTGTA 60
 25 TCTTNTCAGA TTAGAACATA TTTTNTTGT CATGACAAAG GACTCTCCAA A 111

SEQ ID NO:4309

SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05123

SEQUENCE DESCRIPTION:

30 GATCTNAACT CCTTGGCTTC TTTACTTAGT TCAAGCCCCA GCCTAGGAAA GCCAGTTACA 60
 35 TAAAAGTTGG CTCAGGAGTC TTAGAGCTTT ACCTAAATAT GAGCCCAGAA AACGGAGGAT 120
 GGGGGTGGGG CGCCTTCCTG GAGGTGACAC TTGATGGGGG TGTGTCTCGG TTAGTGTCT 180
 AAGGCTGTGC CATCAGCTCC TTCCTCCCT GTTCATTCTG CATTCTCTAG TCAGTTGGCT 240
 AAGAAGTGAC TCTTGCAACT AAAAAATTA AGAAATTCAC TTCCCTCTA GGAGGTGATG 300
 40 ATAGGGTTTT N 311

SEQ ID NO:4310

SEQUENCE LENGTH:366

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05124

SEQUENCE DESCRIPTION:

45 GATCAGAGTT TCTGTGGAAT TCTGTTTGT AAATCAAAT AGCTGGTCTC TGAATTAAGG 60
 50 GGGAGACGAC CTTCTCTAAG ANGAACAGG TTCGCCCCAG TCCTCTGCC TGGAGACAGT 120
 TGATGTGTC TGCAGAGCTC TTAGTCTCC AGCAACACTC TTCAGTNCAT AATAAGCTTA 180
 ACTGATAAAC AGAATATNNA GAAAGGTGAG ACTTGGGCTT ACCATTGGGT TTAATCATA 240

GGGACCTAGG GCGAGGGTTC AGGGCTTCTN TGGAGCAGAT ATTGTCAAGT TCATGGCCTT 300
 AGGTAGCATG TATCTGGTCT TAACTCTGAT TGTAGCAAAA GTTCTGAGAG NAGCTGAGCC 360
 CTGTTN 366

5
 SEQ ID NO:4311
 SEQUENCE LENGTH:240
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 10
 CLONE:HUMGS05127

SEQUENCE DESCRIPTION:
 GATCAGCTG ACCTGGCAGC GGGATGGGGA GGAACAGACC CNGGACACAG AGCTTGTGGA 60
 GACCAGGCCT GCAGGGGATG GAACCTTCCA GAAGTGGGCC GCTGTGGTGG TGCCTTCTGG 120
 15
 AGAGGAACAG AGATACACAT GCCATGGTGC AGCACGAGGG GCTNCCCCAG CCCNTNATCC 180
 TGAGATGGGA GCAGTCTCCC CAGCCCACCA TCCCCATCGT GGGCATCGTT GCTGGCCTTN 240

SEQ ID NO:4312
 20
 SEQUENCE LENGTH:96
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05128

SEQUENCE DESCRIPTION:
 25
 GATCTTTTCT CCATCATGTA CTTAGTATTT CCCATTAACC TACACACTGA TTTTNTGCT 60
 ACTCCTTGTA GAAACAAAAT INTGGNTGGA CTCAGN 96

SEQ ID NO:4313
 30
 SEQUENCE LENGTH:354
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05129

SEQUENCE DESCRIPTION:
 35
 GATCTGCTGG TCCTTGCAGG CAAAGCTACA GCCAGANTGT CCGTTTGANA CTCCTAGCTC 60
 ATCTGTCACC GAGCTTNATC CGAATGTGCC ACGGAGCTTN CTCTCCACTT CCTCCGTGCA 120
 GCGGCCCTGC CACAGCCCTC CCTCGGCACA CTTTGACCCT TTGTAGGGTT GGNATTAGCA 180
 GGACTCGGCT ATTTAAAGCA CCAGTCTGGG GTCGCCTGGG CCCCTGCTGA CCCNTTCCTN 240
 40
 CAGAGCAGCC AGCCCAGCCC GGGAAACAAGA CGGACTTNCT ATNECTTCGG ACTCACAGCC 300
 TTTGAAGAGT CAAGCTNCAC TTNAAGCTCA CTCAGTAATA TCCTTCAAT GNGN 354

SEQ ID NO:4314
 45
 SEQUENCE LENGTH:161
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05130

SEQUENCE DESCRIPTION:
 50
 GATCCGCCAC TTTCCGCCG AGCTCGAGGA GCGGATGCAG CGGTTTGCCC AGCAGCATCA 60
 GGCCCGGCAG GCTGCCTCTT AGCCACCAAC CCTGGCCTGC TGTCTGCGT CTATCCATGT 120

GGAATGCTGG ACAATAAAGC GAGTGCTGCC CACCCTCCAA A 161

SEQ ID NO:4315

SEQUENCE LENGTH:129

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05132

SEQUENCE DESCRIPTION:

GATCCTGGCT TTCCAGGGTG GGCAAGGGCA AGGAGCAGGC TTGGAGCCAG GGACCAGTGG 60
GGGCTGTAGG GTAAGCCCCT GAGCCTGGGA CCTACATGTG GTTTGCGTAA TAAACATTT 120
GTATTTAAA 129

SEQ ID NO:4316

SEQUENCE LENGTH:227

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05133

SEQUENCE DESCRIPTION:

GATCTTTGAG GTGAACAACT TGCCTGTGGA ATCGTGGCAG TAACTGTTT CACTCACAGC 60
CTGAAATTCT CCTNTGTCCC AAACCCAGG GGGCCCCAGC AGCTTCGAAC CTACACCTGA 120
GGGCTACCAG CAGGTGGCGC TNTGGCTTTG CACTGCAAAA ACTGGGGACC AGCCCNCTTC 180
TNCCACAAAT AAAGCCCAAT AAAGCCTGAG AAGTGAGGAA AGCCAAA 227

SEQ ID NO:4317

SEQUENCE LENGTH:154

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05134

SEQUENCE DESCRIPTION:

GATCTCCGTG GATGAAGTGC GTCTGGACTC TTAGATTCAT AAAATATTTC AGGGTTTGGG 60
AGTNACAGAC CCTCCCCTCT CCTCAGTGCA CTTTGGCATT TNCACGGTGT CTTCCCCGGA 120
CAGCACAGCA ATAAATNGNG TGATTGCGTG GAAA 154

SEQ ID NO:4318

SEQUENCE LENGTH:181

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05135

SEQUENCE DESCRIPTION:

GATCAGGTTT GGNCTTCTCC CACTGAGCAT GACAAGCACT CGAAAGGCTA AATCAACCAG 60
AAACATCGAA ACAAAGCTC AGTACGATGC CAACTNTTAA GCCTGCAGGA NTCCTCCTGG 120
GTTGTCCCC CGGCACGNTC CACAGCTGGT NGACCCGGCA GTTCCTGGNT CCTTGTTTCA 180
N 181

SEQ ID NO:4319

SEQUENCE LENGTH:315

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

5 CLONE:HUMGS05136

SEQUENCE DESCRIPTION:

GATCTGCCCT TGNTNGCCTC ATACCTCTGT GCTCCACACT GCGGCCAGGC CAGCTGAGTC 60
 CCTCCATCCG TGGATGCTTT CCTGCAGCTA TGTGGTATGG GGGTCATTCC TGCCTCTTGG 120
 10 CACCAGGTTG GGGGGCATGT GCTTGTGGG CACCAAAGTG ATGGAACCCT CAGGTGCTCT 180
 CCGGGAGCCT GAACCTCCTG ACTGAGGAAC ATGGGCAGAA CATGTTTATT GCACAGAGTG 240
 GGCCTGCGC ACAGGCGTGG CTGTACACGT GCTCTCAGCT CATCATCCTT TCCAGTAACT 300
 TTAATAAAC ATCCN 315

15 SEQ ID NO:4320

SEQUENCE LENGTH:255

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

20 CLONE:HUMGS05137

SEQUENCE DESCRIPTION:

GATCGNGNNA CTTGGGNGN GGCCTAGGC ACTACCAGCA GCGCACGCTC ACCTTCGCCC 60
 TCAGGGCTGA CGACCCCTG CTCAAGCTCT TGCAGGAGGC TCAGCAAAGC TGAATTAAC 120
 CAGGCAGAAG AGCACAGATG TGTGGGATTG GGGGAGGAGT GGGGACAAGA TTTTNTATCT 180
 25 CTAAGTGAAT TTTCTAAAAA TGTATTTTAT ACCGGCTTAT TCCTAGTATT GNATAAACTA 240
 CGGGGNTCAN TCAAA 255

30 SEQ ID NO:4321

SEQUENCE LENGTH:212

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05138

SEQUENCE DESCRIPTION:

GATCAACAT GCATGGNTGG GTCCTACGC AGACACACCC ACAGAAGGAC ACTAGCCTGT 60
 GCACGCGCGC GTCNATCTAC ACACACACAC AAGAGTTCAT AATGTGGTGA TGGCCCTAAG 120
 TTAAGCAAAA TGCTTCTGCA CACAAAATC TCTGGTTTAC TTCAAATTAA CTCTATTTAA 180
 40 ATAAAGTCTC TCTGACTTTT TGTGTCTTCA AA 212

SEQ ID NO:4322

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45 CLONE:HUMGS05139

SEQUENCE DESCRIPTION:

GATCGAGTTA TTATGATAAC TGTGGTAATT TGTGTGTATA AATAGCAGTA ACATAGGAAG 60
 GTTTTGGTAA CTNCTGACAA GAAATTTNAT GTAGAGAGTT AATTCGAGC ACATTAATAA 120
 50 GACTGTCCCA CTCAAA 136

55

SEQ ID NO:4323

SEQUENCE LENGTH:228

SEQUENCE TYPE:nucleic acid

5 TOPOLOGY:linear

CLONE:HUMGS05140

SEQUENCE DESCRIPTION:

10 GATCTGCATT ATTCTNGGAN AGTATTCAAG TGGTATCTTG ACTATTAAAC TACGTATAGT 60
 GTTNTGNAA TAGAAAGAAA ACAGCATTGG AATTGGATTC ATGTATCGTG GGATACAGGT 120
 GTTATTTTCAG GTGATGTACT TGCATTATTT TCITTAGCCA TAGTAACTTT TTGTCACAAT 180
 AACTAAGTAT TCAATTATAT ATAANGAGTG AAACATTAAA ATGGNAAA 228

SEQ ID NO:4324

15 SEQUENCE LENGTH:297

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05141

20 SEQUENCE DESCRIPTION:

GATCCTGCCA CTGCACCTCA GGCTGGGCAA CAGAGTGAGA CCATGTCTCA AAAAATAAAA 60
 ATAAATAAAA ATAATATCAG GNTGCATACA TCAGAGGCTG TTCCTAGTGT AAAGGCACTT 120
 TGGAGGGAGA AGACTTTTCAG AGTTAGGCAG ACCAACTAAG AGGTCAGCTG ANGCACCTAA 180
 CCAGTTGTAA GGAGGTGAAA GACAGCACCC CAAGANGAGA TGTGCAGGAN GGAGGAAAGA 240
 25 GGCTTGGTCA TAAAGGNTGG AGGAATTCCA AAGTGACACT GANACAGGCT GCGTTN 297

SEQ ID NO:4325

SEQUENCE LENGTH:90

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05142

SEQUENCE DESCRIPTION:

35 GATCGTTCTG CTGAGTATGT TAAGCTCTTT ATGACTGTTT TTGTAGTGGT ATAGAGTACT 60
 GCAGAATACA GTAAGCTGCT CTATTGTAAA 90

SEQ ID NO:4326

SEQUENCE LENGTH:411

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05143

SEQUENCE DESCRIPTION:

45 GATCTGCTGC TGCCATTTTA ATCTTGCTCA TTAACCTTAC TCCTTTGAGA ATTCTTTAAC 60
 AATATTTAAA ATTGGTAACA AAAATAGTTT AGCCATAATT GTTTAGCCAT GTGAGTTTCA 120
 GGTTGGTACA CGTTCAGACA GAACTGCTGT ATCACCATTCC AATTTTGAAT AGCCAGTGAG 180
 CAATCAAGTG TAGAGAAATG ATAAATGGCC TAAGAAGGCA TACAGTGGCA TAAACGATGC 240
 TCTTCCTAGT AGCTTAATAG GCCACAAGCT AGTTTCTGTT GCACTCTGAA ATAAATATG 300
 50 CTTTAAAAAT GTAGGGANCA GTGCTTAGAA AAGCAAAAAC TAGGTGTGTC ATTGANATAA 360
 TAGGCATAAN ACTTAAATGT TCCATAGGCC ACTATTTGGA AGGGGGCCTT N 411

55

SEQ ID NO:4327

SEQUENCE LENGTH:99

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05144

SEQUENCE DESCRIPTION:

GATCTACACA TTTTATAGT CATTAAAAAT TGTATGACTC TGTCAAATNA TTAAAGTAAT 60
 TTTGGTGGAT TTTAAAAAT AAAAAATAA AAATAGAAA 99

SEQ ID NO:4328

SEQUENCE LENGTH:80

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05145

SEQUENCE DESCRIPTION:

GATCAGTTTT TATAGCATCT ATGGACATAG AAAATCAGTC ACTGAAAAAA ATAAACACAG 60
 CTTTCAATGT CTCACATAA 80

SEQ ID NO:4329

SEQUENCE LENGTH:263

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05147

SEQUENCE DESCRIPTION:

GATCCAGAAT CACCAAGACC TCCAGCCCTG GATGATGCCT TTTCCATCCT GGAATTATTC 60
 CTGGGACGTT GGTTCGGGTC CCGGTAGCCT TGTTAACCTT CAGAGGCCTT CAAGTCCTTT 120
 CCACCTNTCA CCCATTGCCC ACCATTAANA AGCTTAGCTG NNTCTTGCCA CCTCAGGGGC 180
 TTGGATATGT GGAATAGTGA ACTGGGNCCA TGTCAAGTTG TCACTNACCC AAACGACCA 240
 ATAAACCTN NATTTATGNT AAA 263

SEQ ID NO:4330

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05148

SEQUENCE DESCRIPTION:

GATCCTAANN CTGACAAGAT TCAAAGNACT AAATTTAATT CAGTCATNAA CACTACCAAT 60
 TACCGTTTAT NGGTAGACAT CTTTGGAAT TTCCACAAGA GCAAGCTAGG N 111

SEQ ID NO:4331

SEQUENCE LENGTH:264

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05149

SEQUENCE DESCRIPTION:

GATCTGACCT GTTTATTGTT GGCCTTGTGTT GAAAACGAGC TTTCTTTCCC ATGATAGTGC 60
 TTCGTTTTTG AAGTGTGAA GCTGTGCTCC CCTNAAATCG TGGCAGGAGA GATTAAGGTA 120
 ATTACAACAC TCAGTTCTAT GTCTTACAAG CACTTTGTCT TGTCTCTGCA AGAAAATTCG 180
 ATNCCNGTCA TNTCCATAA AATACAGNCA TTTTACCANC ATANTATGCT TTGATTGANG 240
 CAGCANTATG CTTTGGGCA GTAN 264

SEQ ID NO:4332

SEQUENCE LENGTH:259

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05150

SEQUENCE DESCRIPTION:

GATCCTCCCG CTCAGCCTC CCAAGTAGCT GGNATTATAG GTGTGTGCCA CTGTGCCAAG 60
 CTAATTTTTT AATTTTNGT AGAGATGNGA TTNACCATG TNACTCAGGC TGGTCTCAA 120
 CTCCAGCCT CAAGCNATGC TCCCACCTCC ACCTCCCAA GTGCTGGGAT TACAGGCGTG 180
 AGCACCATAC CTGGCGCATG CATATTTTN AAGAGTACCC ACTGGNGTCT AATATATAGC 240
 CTGGGNTACC TGGGATGAN 259

SEQ ID NO:4333

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05151

SEQUENCE DESCRIPTION:

GATCTAACCA ATTTGAATAT GACTTCCTAC TCCAACGTAT CACCAAAACA CTGAAAAGCA 60
 ATAGCTGGTT TGGTTGTTAG AAATGGTGTA ATTAATGGTT TTNGTTAGTT CACTTCAGCT 120
 TAATAAGTAT TTATNGCATA TTTGCTATGT CCTCAGTGTA CCACTACTTA GAGATATGTA 180
 TCATAAAAAT AAAATCTGTA AACCATAGGT AATGATTATA TAAAATACAT AATATTTTTC 240
 AATTTTGAAA 250

SEQ ID NO:4334

SEQUENCE LENGTH:260

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05152

SEQUENCE DESCRIPTION:

GATCGCATTT ATATAACATT CTTGAGGTGA CAAAATTATT GAAATGAAGA ACAGATTAAT 60
 GGTGCCAGG GATAGGGACT GGAGGGGGTG TGGGGTATGT ATGACTATAA AGGGATGACG 120
 CAAGGAGTTC CTTTGTGCTG ATGGAACAGT TCTATATGAT TATGATGATT ACGATGTTGA 180
 TTATAACATT TGATTATGAG GTTAAGCACA TGAGTCTTTA CCTGTNCTGA AGTTGTATGG 240
 ACCTACATAC ACACAAATGN 260

SEQ ID NO:4335

SEQUENCE LENGTH:261

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05153

SEQUENCE DESCRIPTION:

GATCAAGACG AGCCTGCACC GCCTGAAGCC CGACACGGTG CCAGCGCCCT GCTGCGTGCC 60
CGCCAGCTAC AATCCCATGG TGCTCATTCA AAAGACCGAC ACCGGGGTGT CGCTCCAGAC 120
CTATGATGAC TTGTTAGCCA AAGACTGCCA CTGCATATGA GCAGTCCTGG TCCTTCCACT 180
GTGCACCTGC GCGGGGGAGG CGACCTCAGT TGTCTGCCC TGTGGAATGG GCTCAAGGTT 240
CCTGAGACAC CCGATTNCTG N 261

SEQ ID NO:4336

SEQUENCE LENGTH:145

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05155

SEQUENCE DESCRIPTION:

GATCCTCAGT AAACCTCTGAG AAATAATGAA TGTGTTGT TTTAAATGG TAAATNTGA 60
GGTATTATGT TATGTGGCAA TAGATAGCTA ATATATACT NATTTGANTC AAACAATATG 120
TTAANTTAAA GCNCAGAAGA NTAAA 145

SEQ ID NO:4337

SEQUENCE LENGTH:264

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05157

SEQUENCE DESCRIPTION:

GATCTAAGGA AAGAAATGGA GCAACTAGTG CTTGACAAAA AGCAAGAGGA GACAGCCGTA 60
CTGGAAGAGG ATTCTGCAGA TTGGGAAAAA GAACTGCAGC AGGAACTTCA AGAATATGAA 120
GTGGTGACAG AATCTGAAAA ACGAGATGNN AACTGGGATA AGGAAATAGA GAAAATGCTT 180
CAAGAGGAAA ATTAGCTGTT CCTGAAATAG AAGAATAATC CTTAACAGTC TGCAAACCTGA 240
CATTAAATTC TAGATGTTGA CAAA 264

SEQ ID NO:4338

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05158

SEQUENCE DESCRIPTION:

GATCGGGGCG GGGAAACAGC NGGAAGANGG NCGCACCCGG TCTGACTACA ACANCCAGAA 60
AGAGTCCACT CGGCACGTGG TCCNGCGCGT GAGGGGGGGT GTCTAAGTN 109

SEQ ID NO:4339

SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05159

SEQUENCE DESCRIPTION:

GATCAGTATA CAGTGTACGT AAACACACC ATCCTCAAAC CCCGGAAAGC AAAGCAAATC 60
 AGGAAGAAAA GTGGAGGTTA GCAACACACC TNTGGCCCA AAGNACAACC ATCTTGTTAA 120
 CTATTGATTG CAGTGACCTG ACTCCCTGCA AGTCATCGNC TGTAACATTG GTAATAAAGG 180
 TCTTCTGNCA TGAAG 195

SEQ ID NO:4340

SEQUENCE LENGTH:54

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05160

SEQUENCE DESCRIPTION:

GATCTAATAT TCAGGAATTT TTCTCCTAAA GACACCCAGT AAAAATATCA CAAA 54

SEQ ID NO:4341

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05161

SEQUENCE DESCRIPTION:

GATCACTGTG TAAACTAAG TNTCTCTAAA TGTAATGCAT CGATTAGTG TCTGGAACAT 60
 AATAAATATT TGCTCTCATG ATTGCTAAA 89

SEQ ID NO:4342

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05162

SEQUENCE DESCRIPTION:

GATCTACATC CCCATCCACC TATACGGACA TCTTTCCGT TGTGGTTTGA GAATGTTCT 60
 ATAATAAACC CCTCTGCTTT GTTCTTAAA 89

SEQ ID NO:4343

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05163

SEQUENCE DESCRIPTION:

GATCGTCTTG TATGGTGAAT TTCTAGGAG CGATGATGTA CTGTAATTTT ATTTTAATGT 60
 ATTNNGATTT ATGATTATNT ATTAGTTGNN TTTAAATGCT TN 102

SEQ ID NO:4344

SEQUENCE LENGTH:248

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05164

SEQUENCE DESCRIPTION:

5 GATCAATTNT GCANCANACA NCAATCTTAA CCATTTCAG AAACACTAG TTATATTAGG 60
CACGTTTTAA AAACCTAAAC AAAATAAAGG CCATCCCAA CCCTGGGCTG TTGTCGGGT 120
ATTTGACAG AGGGTTGTGT TCAAAANCTT CCTTGACTC CCTGAGACTT TATCTNCTNC 180
TTGCAGAGTA AGATGGAAAG CCANTCAGTG TTTGCNGTAA TGTAATACAG NGTAGTGCCA 240
10 TTCNGGNN 248

SEQ ID NO:4345

SEQUENCE LENGTH:239

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS05165

SEQUENCE DESCRIPTION:

20 GATCCAAACT TCTACAGCAA AAACCTACTT CTTTtagGAA AGACATACTT GAAACTACAC 60
AACAAAAAGC TTGCTGCTT CTGGCTAATG AAAGCCAAGG ACTATCCAGC ACACACAGAG 120
GAGGATAAAC AGATACAGAC AGAAGCTGCT CAGTTGCTTA CAAGTTTCAG TGAGAAGANT 180
TGAGAACTTT TCAGAGAAGA TTTATGAAAT AGCTAATAAA CATTGCCTT TCTTTTAA 239

25 SEQ ID NO:4346

SEQUENCE LENGTH:223

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05166

30 SEQUENCE DESCRIPTION:

GATCAAAAAA TGTCTCCGCT CAGGGATTTA TGGTGGATTA TTGCAGACAN TGCTAAAAAT 60
ATAGAGCACA AGACAAGTTT ACTAAATTA AATTTTATTT TTTGAGAAAC TGTATTGT 120
ATAAATTATC AAGATTGTGA GGCTTTCCTT TNGTAGAAAT AATTGTTTTA TGTGCCAGAG 180
35 AATTCAATT TNGTTTTCAA CAATAAGCA TTGATAAGAG AAA 223

SEQ ID NO:4347

SEQUENCE LENGTH:52

SEQUENCE TYPE:nucleic acid

40 TOPOLOGY:linear

CLONE:HUMGS05168

SEQUENCE DESCRIPTION:

GATCATTTGT TTATAAAAAT GTGTCCTATT ACACAGTGAG TTAACCTCA AA 52

45 SEQ ID NO:4348

SEQUENCE LENGTH:334

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50 CLONE:HUMGS05169

SEQUENCE DESCRIPTION:

55

GATCCGAGCG ACCATGGTGG CCCGGGTGTG GTCGCTGATG AGGTTCCCTCA TNAAGGGAAG 60
 TGTGGCTGGG GGCGCCGTCT ACCTGGTGTA CGACCAGGAG CTGCTGGGGC CCAGCGACAA 120
 GAGCCAGGCA GCCCTACAGA AGGCTGGGGA GGTGGTCCCC CCNGCCATGT ACCAGTTCAG 180
 5 CCAGTACGTG TGTCAGCAGA CAGGCCTGCA GATACCCAG CTCCCAGCCC CTNCAAAGAT 240
 TTTACTTICC NATCCGTGAC TCCTGGAATG CAGGNATCAT GGACGGTTGA TGTCAGNTCT 300
 NNTNGGTGGC CCCTTTCAA GGGNCNGGTG AGTN 334

SEQ ID NO:4349

SEQUENCE LENGTH:146

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05170

SEQUENCE DESCRIPTION:

GATCCATCAA ATTGAACAAT CTGTTGTAAT TAAAAATTTT GGCCACTTTT TTCAGATTTT 60
 ACATCATTCT TGCTGAACTT CAACTTGAAA TTGTTTTTTT TTNCTTTTGG GATGTGAAGG 120
 TGANCATTCC TGATNNNGGC CTCNNN 146

SEQ ID NO:4350

SEQUENCE LENGTH:257

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05172

SEQUENCE DESCRIPTION:

GATCTCAAGC CTCTTCTGAA CCCCAGGCTT TCTTGAGTCT CCATATGAGC ATTTGCCTCT 60
 GTGGGCACAA CTTCAAGTGT CCTTTGTGAG GAAATGTGCA TCTCTGGNTG GTGAACTTCC 120
 30 ATCCCTCAGA GAGAAATAGA AGCACAAATT TGAACAAGC TGTCTGTCTG NGNNNNNNCT 180
 TTATGTCTTG GAACTTTAT TTATCCATCC AAGCTTTNTT TTTTTTTTAG CCTTTNNGGG 240
 CAGGNAACCA TCCAGGN 257

SEQ ID NO:4351

SEQUENCE LENGTH:73

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05173

SEQUENCE DESCRIPTION:

GATCTGTCTA CTGAGAAGAC CCAATCTTG GTTCTAAAT GCCATTCTTC AATAAAAGGA 60
 ATTGGGTTTC AAA 73

SEQ ID NO:4352

SEQUENCE LENGTH:73

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05174

SEQUENCE DESCRIPTION:

GATCTCCTTC TCCNTCCTGT CCTGCTCTTG CCCCTCAGGA CTGCTGGAAA ATAAATCCTT 60

TAAAAATAGTG AAA

73

SEQ ID NO:4353

SEQUENCE LENGTH:306

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05176

SEQUENCE DESCRIPTION:

GATCCAAGCA GGGGGATGAA AAATCAGCA GAGAAATTCG AGACCATTTT CCAAGACTNT 60
 CCCCTTCTCC TCAGGACCCC CTGGCTCAGT NCTTGAAAAA CGGTGTCATA TTTAGTCAGA 120
 GGCCCCACCC CCAGGAAGCA TGGATGGGGA TGAAGGCACA GCGTCTCCA ACCTCAGAGG 180
 CCCTTTGTGG GGTGAGGACA CAGAGTGGGN AGANGAGACT GATGCAGGCC TACCAGTNCC 240
 TGGCTTTTGG TCTGGGGCTG GAATAAAGAG GTGNCTTCAG CTGTTTGGNN CGAGAGGCAG 300
 GGTAAG 306

SEQ ID NO:4354

SEQUENCE LENGTH:76

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05177

SEQUENCE DESCRIPTION:

GATCAACTGG AACCTCTGTA TCATGCGGCT GAATCCCTT TTTCTTTAC TCAATAAAAG 60
 CTACATCAGA CTGAAA 76

SEQ ID NO:4355

SEQUENCE LENGTH:52

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05178

SEQUENCE DESCRIPTION:

GATCAGGCTT TTAGGACCTA GGAAACAAAT AAAGAGGAAT TTGTTGCTGA AA 52

SEQ ID NO:4356

SEQUENCE LENGTH:268

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05180

SEQUENCE DESCRIPTION:

GATCCTTATT CTAGCTACAA GTCAAAGATA ACTCCTGGTC CAGACAAAAC ACCTGGCCTA 60
 TCACAAGCTG ACTAAAAATC TGCACCTTGG GCCAGCGCAG GCAACAGTAA CTNTGACAGG 120
 TTCAAATTAG ACCTCACACT TTCTACTCAT ATTCTAGTCA CTGGACCCAT CTGANTCAGT 180
 AATCCCTNCT GCCCGGTCCT GGAGTAACTT CTTAGAGATA TTATAGCAAG TGGCAAAANT 240
 AAAAGAGGGA TTTGCTANGA NTATCAAA 268

SEQ ID NO:4357

SEQUENCE LENGTH:114

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05181

SEQUENCE DESCRIPTION:

GATCTCAAAT ATAAATTGA GATTATACAT GTAGTTATGT ATAGNGNCAT GTAGTTACAC 60

ATAGTTTGT ATTTNCCTGT TTTTCTCA TATGAGCATT TNCTTATTAA NGTN 114

SEQ ID NO:4358

SEQUENCE LENGTH:179

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05182

SEQUENCE DESCRIPTION:

GATCTACACG TGTTGTTTTG TTTTNCCTT ATTGATGCAC GNATGCTTTT GAACAGTAGA 60

GNAAAATGCT AGACATGGAG AATCTGCTCT GTTTGTCCTN TATACATTTC TGTAGTTAAC 120

AGAACACTGT AATGTGCCTT GGAGCTTAGT AACTNGTAAT AAATTCAATN GATATTAAA 179

SEQ ID NO:4359

SEQUENCE LENGTH:85

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05183

SEQUENCE DESCRIPTION:

GATCCTAAAT CCTATGTAGG CTNNGGTTAT TAGTGTATAT TTGTGTCTTA AAACAATTTT 60

GAAAGTNAAA AAAATATTTT TTAAT 85

SEQ ID NO:4360

SEQUENCE LENGTH:194

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05184

SEQUENCE DESCRIPTION:

GATCTNATTT TGAGATTAAA AAAAATACTT CTAGCTTTAG CCAGGTGTGC ATGTNGCTGC 60

CATTTTGCAT TTTTGAATCA TCTTGTGTAA TTGTCACCAT GAAAGTGTTA CTCAGAAATNG 120

TCATAGATTT NNTNTTCTTT GTGCAAAAAC ATGGAATAAT GTCAGTACT TTGTTTGTAG 180

GTTTCCCCGG NNNN 194

SEQ ID NO:4361

SEQUENCE LENGTH:216

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05185

SEQUENCE DESCRIPTION:

GATCTGCTGT ATGTTACAGT TATGTAATTT GACTTGTTTC AAAATTATTA AAGTTTAAAG 60

TGTATGCATT CTACTGGTCA ATAAGTAAAT ATATTCAGGC TCTGAATGTA GACAGATAAA 120
 TATATAAATA TAGAAAGTAC ATTTGTTAGA ATACAAACAA GAATAAAAAAT TGAGTACAGA 180
 NTGAAAACCT TATTAAATTT TATCACTCCA TATAAA 216

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SEQ ID NO:4362
 SEQUENCE LENGTH:333
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05186

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SEQUENCE DESCRIPTION:

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GATCAAACTC AAGCTCACAC CTGTACCTGA TGGGAATGAA CATAATGTGA AGAACTTAT 60
 TTCCAGTGT AAACGCAGTT GTACAGAAAA AAAATGTTTT GGTATAAAT CTGGGTTTTC 120
 AAAACCAGCT TTNTTCTATA TATAAATNAT GCTGCTATTA CAGATTTAAC ATTNCTGTT 180
 AAAGGAAAGT CTACATTTTC TGCCTGTNCA GAACTGTTTA ATAGCAGTNN CTCTTGAGTG 240
 TATTNCCCTT GGTATGTTTT TNAACCTATT TTCCTTNAAG CCGAAAATAT TGCCAATTGG 300
 ATANGGTTAG CTTANNAAG TNAATAAAN NAN 333

20

SEQ ID NO:4363
 SEQUENCE LENGTH:185
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05187

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SEQUENCE DESCRIPTION:

30

GATCAGCCAG TCTCTTTCAT CATCAAGCAG ACATACTCAA GGTACCAACA CAGCAAAGGC 60
 ACAAATGTC TCTATATCAG TATTTTTCAT GGTATATGTG AGACCCATTA GTGAGGCATG 120
 AAATCAATTC TGTGAGTCAC AATGAACATT TGTCTAAAAA ACATAATAAA NTGTAAAATA 180
 CAAA 185

35

SEQ ID NO:4364
 SEQUENCE LENGTH:108
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05188

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SEQUENCE DESCRIPTION:

GATCCTTTCC CATTTATTCT GGAAGATGT TTTCAAACCT CAGAGACAAG GACTTTGGTT 60
 TTTNTAAGAC AAACGATGAT ATGAAGGCCT TTTGTAAGAA AAAATAAA 108

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SEQ ID NO:4365
 SEQUENCE LENGTH:201
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05190

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SEQUENCE DESCRIPTION:

GATCATTGG CTCTTTTTTT CCTTCCAGAA GAGTNGCATC AACAAAGTTA ATTGTATTTA 60
 TGTATGTAAA TAGATTNAA NCTTCATTAT AAAATATTGT GAATGCCTAT AACTTGTTN 120

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NCAATGTGNT TGTGTGTGTT TCTAAGGACT TTTTCTTNGG NTTGCTAAAT ACTGTAGGGT 180
TGAAAATGCT TCTTTCTACT N 201

5 SEQ ID NO:4366
SEQUENCE LENGTH:118
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS05191
SEQUENCE DESCRIPTION:
GATCCTTCAT GGACANTATT CTAAGTATA CGTAGACACT TACTTGAAAA TTTTGGACA 60
TTATATTTAA TGAGTGCTAT CTGTGAAATT GGTATATTA GGTGGCTNNN NCTAATGN 118

15 SEQ ID NO:4367
SEQUENCE LENGTH:277
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
20 CLONE:HUMGS05192
SEQUENCE DESCRIPTION:
GATCTGAGGT CTAAGCTAG GAGAGACTGA GAATTTTAAT CAGTTTGGGC ATATAGTTTG 60
GACTGAATCA CATCTGTAGT ACTTAGCCAA AGACAATTG GAGGAGAATA TCAGCCTTCT 120
25 GGAAGTAGCT ACTTCTGNT CAATGTAAAG TGTCGCAGAT ATTCAATAAA ATGGCAACCT 180
GTTATAATTT TTTTGAATAT CAGCCTTCTG GNAGTAGCNA CTTCTGTAN CAAANGTAAA 240
GNGTCGCAGN TATTCAATAA AATGGCAACC TGTTTTN 277

30 SEQ ID NO:4368
SEQUENCE LENGTH:209
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05194
35 SEQUENCE DESCRIPTION:
GATCTCTTGA CAANTGTGTA TGTTAACTTT TTAGCACATG TTTTGTACTT AGTACACGAG 60
AAAACCCAGC TTTCATCTTT TGTCTGTATG AGGTCAATAT TGATGTCCT GAATTAATTA 120
CAGTGTCTTA TAGAAAATGC CATTAAATAA TTATATGAAC TACTATACAT TATGTATATT 180
AATTTAAACA TCTTAATCCA GAAATCAAA 209

40 SEQ ID NO:4369
SEQUENCE LENGTH:58
SEQUENCE TYPE:nucleic acid
45 TOPOLOGY:linear
CLONE:HUMGS05195
SEQUENCE DESCRIPTION:
GATCGTGTG GAGACTNTNA CACAGTTTAA ACACATCAAT AAATACTTTA ACTTCAAA 58

50 SEQ ID NO:4370
SEQUENCE LENGTH:108

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05196

SEQUENCE DESCRIPTION:

GATCGAGGTA GTAAAGGCCA TCCACATTTT AAAGGGTTAT TTGTCTNTNN TATAATNCGT 60
TTGCTTTCAG AAAATGTTTT AGGGTAAATN CATAAGACTA TGCAATAN 108

SEQ ID NO:4371

SEQUENCE LENGTH:190

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05197

SEQUENCE DESCRIPTION:

GATCAAACAG GGACACAAAA GCAAGTATCA TGGGAGGAAC TTGAAATCTC TGNGGACAGC 60
AGAAGCTGAC TTCAACTCTN ATAATTGTGG CATCCATAAA TTGCAAATAT AGCCCTGAAT 120
AGATACACAC AAATGTCTAT AATGAAGGCC CAGCAGAATG GAATGTGTGA CCATCTTCAG 180
GAAGAAAATN 190

SEQ ID NO:4372

SEQUENCE LENGTH:241

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05198

SEQUENCE DESCRIPTION:

GATCAATCCC TAGTAAAAGC CCTGGACACC TAGGCATGGG TGAGCTACTN TGGTTGGTAA 60
TACTCTGTGC ACACATCATT GTAGCCACAC ATCATTGCTG GGAGAATTAA GCATTATCCT 120
GAAGACTCTG CCAGGAGAGG ATAATTGGAA GTTCTCTTGG ACCTTACCTT ATGTGCCTTT 180
NTTCATTGCT GATTTTAATC TGTATCCTTT CACTGTAATA AACTGTAAC TATGNGTGCAA 240
A 241

SEQ ID NO:4373

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05199

SEQUENCE DESCRIPTION:

GATCGTTCAT TGCCTTTCCA GGGTTATTTA GTAAAGTTTG TTGAAAACAA A 51

SEQ ID NO:4374

SEQUENCE LENGTH:153

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05200

SEQUENCE DESCRIPTION:

GATCTCAGGT GATTACCCG CTTCTGCCTC CCAAAGTGCT AGGATTACAG ACATGAGCCA 60

CCGCACCTGG CCATACAATT GCCTTCTATA TGTTTTTNAT TTAATATGAC ATTTGTATTT 120
 CCCCATGTTA TTAATAAATT CTNTATAAGC AAA 153

5 SEQ ID NO:4375

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05201

10 SEQUENCE DESCRIPTION:

GATCACCCCA CCTGTGAAG AGGCAGTTGG TGCTGGCAGT AAGCTGGTTT CCTCCTCTCC 60
 AGGGTTTTCC TAGTAATAAA GGTGTTNCTG TTGANGCCGT AAA 103

15 SEQ ID NO:4376

SEQUENCE LENGTH:390

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05203

20 SEQUENCE DESCRIPTION:

GATCACATTC ATTCCATAGG TAGCTTTACG TGTGGCTACA ACAAATTTTA CTAGCTTTTT 60
 CATTGTCTTT CCATGAAACG ANNTGANGAA AATGATTTTC CCTTTGCAGG TTGCACACAG 120
 TTTTGTTTAT GCATTTCCTT AAANTTAATT GTAGTCTCNA GGATACAAAC CATAGFAGGC 180
 AATACAATTT TAGAATGTAA TATATAGAGG TATATTTAGC CTCTTTTAGA AGTCAGTGGA 240
 TTGAATGTCT TTTTATTTTA NNTTTACAT TCATTAAGGT GCCTCGTTTT TGACTTTGTC 300
 CATTAACTT TATCCATATG CCTTTGCAAT ANCTAGNTTG GTGNAAGCT AACCAAGTGT 360
 TGTAACCANT AATCCNTTGT TTNGNGGTGN 390

30 SEQ ID NO:4377

SEQUENCE LENGTH:144

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05204

35 SEQUENCE DESCRIPTION:

GATCACATGC AGGACTCTTT CTTAATGCAG CCTGAGACAA ATCTTGCAAT ATGAAGAGAT 60
 GATTTCCAGG TTTTATTGAA TAAATGAATT GTAATTTTGA CTGAAATTA TCTTATTAG 120
 TATAATAAAT ATTACAATAT TAAA 144

40 SEQ ID NO:4378

SEQUENCE LENGTH:386

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05205

45 SEQUENCE DESCRIPTION:

GATCCCACAG CGAAACACTG GCCACTGGCT ACCAGTATTN CTTCCACAG CTAGGGGCTG 60
 CCTTAAAGGA AATTGTAGCC TAAGTAGGTC GTGGCAAGGG CCTGAGGCCT GTTCCTCACA 120
 GGCTTCCAGG TTAGGCACTG TGAATAGGCT CAGCTCCTCT AGAGAGCTGA AGCCATCTGG 180

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TTCTTAGATT CCTCTCCAG TCCTCTTCC CATTGTTCTG TTGCTCCACC TTATTGTCTC 240
 AAGGCCGTAA TCTCATCAGG TTGGGACATT AATCTTTTCA ACTCCTTTGT AAAGATTTC 300
 CAGTTTGGTT TCTCTACATG TNCTGCAGCT GGCCNCAATT CTCCTTTNAC GTTGTGTAGA 360
 5 GAATGNTCTG CAGTTTTAGG GCAAGN 386

SEQ ID NO:4379
 SEQUENCE LENGTH:174
 SEQUENCE TYPE:nucleic acid
 10 TOPOLOGY:linear
 CLONE:HUMGS05206
 SEQUENCE DESCRIPTION:
 GATCTAAACG AAAAATAGTT TCTTGTTTAA ATTCACATAA GGCAATNAGA TATGGAAAGA 60
 15 TGACAAGATA CGTATAACA TTGGTTTGCA TTTTATTAAA TNATTCTAAT GCAAATCTTG 120
 TATAAAGAAC CCATGATGTT TTGTAACTTT CTAATTAAAA TGTCAAAAT GAAA 174

SEQ ID NO:4380
 SEQUENCE LENGTH:207
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05207
 SEQUENCE DESCRIPTION:
 25 GATCTTGGTC AATAACTGGG AGATGGACAA ACTAGAGATG GAAGATGCAG TCACATTTTT 60
 GAAGACTAAA ATCTATTGAG TAGAAGCTCT TCCTGTTGCT GCTGTAAATG TGCAAAGCAC 120
 ACAATAAAGT GAAAATCAAC CTTTTCATAT TAGGAGACAT GCATTGTGTA AAATTAATAA 180
 AGATGACAAG TCAGTTGTCA ATGGAAA 207

SEQ ID NO:4381
 SEQUENCE LENGTH:189
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 35 CLONE:HUMGS05208
 SEQUENCE DESCRIPTION:
 GATCAGCACC TTGGCCGTGA TTCCCAAGGT CCCAGCCAAA GCAAAGGGCC AGTTGTTTCA 60
 GTTTAAACAG ACATGTCTTT AGTCTAATAA AATTAGTTAA CTGCCAGTAA AGTTATTTGT 120
 40 TAGCTTTGNT GAAAGCTATG NNGGTATCTT TCCCTAATCA TCAAAGTAAA TAAAAANTCA 180
 TTTCTNAAA 189

SEQ ID NO:4382
 SEQUENCE LENGTH:502
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05209
 SEQUENCE DESCRIPTION:
 50 GATCTGTTCT TTTAAGTTG ATTCGGGAGT GGCATTCTTT TATACCCAAA GACTGTAGTG 60
 CATCTTGAAG AGCTCAAAGC ACATGACCGC ACAAATGCTT ACAGGGTTTC CTCCCGAGTA 120

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ATCCAATCTC ACTCCCCTTG TAAGGGAATT CTGGGGCAGC TATGGTTTGA GTATGCAGTT 180
 TGCATCGTGT TTCTACCTTT AGTACCTTGC CACTCTTTTA AAACGCTGCT GTCATTTCCT 240
 ATTTCTTAGT ACTAATGATT CTTTGATTCT CCCTCTATTA TGTCTTAATT CACTTTCCTT 300
 NCCTAAATTT GGTGATTGG CATATCAAAT TCTGGTAAAA TNGTTTNGG TAAANCATAT 360
 TTACCCNCAC TTGGGGTAAA TCCCAATTCC TGGNTAGGN CTTTTAAAA NGGGTTTTTN 420
 NTTAATNGGG NNAATCCAAT TATTAATAAN GGGGGNCCN TTTTNAAG GGNGGAANAA 480
 ANGGNGAGGG GGNAGNTNGN GN 502

SEQ ID NO:4383
 SEQUENCE LENGTH:383
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

CLONE:HUMGS05210
 SEQUENCE DESCRIPTION:
 GATCTCTGGT CAGAGTGAAC TCTTGCTTCC TGTATTCAGG CAGCTCANAG CAGAAAGTAA 60
 GGGGCAGAGT CATACTGTG GCCAGGAAGT AGCCAGGGTG AAGAGAGACT CGGTGCGGGC 120
 AGGGAGAATG CCTGGGGGTC CCTCACCTGG CTAGGGAGAT ACCGAAGCCT ACTGTGGTAC 180
 TNAAGACTTC TGGGTCTTN CCTTCTGCTA ACCCAGGGAG GGTCTAAGA GGAAGGTGAC 240
 TTCTCTCTGT TTGTCTTAAG TTGCACTGGG GGATTCTGA CTTGAGGCC ATCTNTCCAG 300
 CCAGCCACTG CCTCTTTGT AATATTAAGT GCCTTGAGCT GGAATGGGA AGGGGGNCAA 360
 GGGTCAGTCT NTCGGGGTNG GNN 383

SEQ ID NO:4384
 SEQUENCE LENGTH:258
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05211

SEQUENCE DESCRIPTION:
 GATCAAACTG TTGGAGGAGA AGCTGAAGGA GGCTGAGACC CGAGCAGAGT TTGCCGAGAG 60
 GTCTGTGGCA AAGTTGGAGA AANCCATCGA TGACCTAGAA GAGACCTTGG CCAGTGCCAA 120
 GGAGGAGAAC GTCGAGATTC ACCAGACCTT GGACCAGACC CTGCTGGAAC TCAACAACCT 180
 GTGAGGGCCA GCCCCACCCC CAGCCAGGCT ATGTTGCCA CCCCACCCA ATAAACTGN 240
 TGTTACTAGN CTNTNAAA 258

SEQ ID NO:4385
 SEQUENCE LENGTH:174
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05212

SEQUENCE DESCRIPTION:
 GATCAATGAA AGGAGACATC TGGAGTGTGC GTGCTTCTTC AGAGGGACGG GTGATGGGCA 60
 GATTGGAAAA AGCACCAGCAG ATGGGAACCT TAATCTTTCT TTTCTAAAAAT TGATGCTATG 120
 AAAATTTGCG TTTTCTGTAA CTTGTAAAAA CTAAGGTTG CTTGTCTACT GAAA 174

SEQ ID NO:4386

SEQUENCE LENGTH:62

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05213

SEQUENCE DESCRIPTION:

GATCAGGCAA AAATAGTTT CCAAAGTTAT TTTAATAAA GTATATACAA AATTCTTATA 60

AA 62

SEQ ID NO:4387

SEQUENCE LENGTH:217

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05214

SEQUENCE DESCRIPTION:

GATCTAACGC CACACCTCCG TGAAACACA ANTCNCACAG CAGGAACCAC NTGAACCTGG 60

ACATCAGCAG TTTATTCAGC AGATGCTTCA GGCTCTTNCT GGAGTAAATC CTCAGCTACA 120

GANTCCAGAN GTCAGATTTC AGCAACAACT GGAACAACCTC AGTGCAATGG GATTTTNGAN 180

CCGNGAAGCA AACTTGCAAG CTCTAATAGC ANCAGGN 217

SEQ ID NO:4388

SEQUENCE LENGTH:95

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05215

SEQUENCE DESCRIPTION:

GATCTATGCA GACAACGTG TATTCTGTTT TATAACAGTT TGTTTGAATT TACTTACAGT 60

TAAAAAATTT AAATATATTT ATGTTTGTAC GGAAA 95

SEQ ID NO:4389

SEQUENCE LENGTH:192

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05216

SEQUENCE DESCRIPTION:

GATCTGGGTG AAGGGGAGAA CCTGCCATCT TATCCCTACC CCCCCGGGGC CCTCAAGCTT 60

ATTTTCTGT TGAAGAAACA CAAAACCTC GAGATTCATG TACTGTATGT TGGAGAAAAA 120

AAATTACCTA ACTGTTCCCC CAAAAAAGTC AGTATNTTTT GTACTTTGTA AAAGTGTTGG 180

TTAAAAATGA AA 192

SEQ ID NO:4390

SEQUENCE LENGTH:135

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05217

SEQUENCE DESCRIPTION:

GATCTGCAGC CTTTGGGTA TCAAATGGGT CAAAACCATG GGACCTGCCA CCTCCCATCA 60
 GCAATTCTGG AAATGCACTA TTTCTACTGG TGNTCTTGCT TTTTTTTTTT TTNNATTTTC 120
 TNGNTGAANT GCCAN 135

SEQ ID NO:4391

SEQUENCE LENGTH:270

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05218

SEQUENCE DESCRIPTION:

GATCGTANTT AGTCCTTTTC ATCTCAGCTG CTCCTTAAAT CAGTGCAACC CCTCCAAATT 60
 AATGTGAATT GAAACTTGCA TTGCTTTTCA ACTTAATTGA ATACTTACTA TATGTGAACC 120
 ACTGCACAAA ATAGGGGAAG AAGATGTGGG AGACAAAGAT GTGGAGCCTG TCTTCAATAA 180
 ATTTACAGTT AGTTTCAGGG TACATTGTTT TNCNTCTGCT GTTAATTAGG TGTATCCCCA 240
 AGACAATAAA TACATGGNTG GGAAAGTAAA 270

SEQ ID NO:4392

SEQUENCE LENGTH:123

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05219

SEQUENCE DESCRIPTION:

GATCAAAATT GGNTAAATTC TATTGTAACA ATTCGTTGG TCATTTTGGG CCATAAAATT 60
 TTTTGTAAAT AGGAATTTGT ATAAAGCATT ACTCTTTTTC AATAAATTGT TTTTAAATT 120
 AAA 123

SEQ ID NO:4393

SEQUENCE LENGTH:288

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05220

SEQUENCE DESCRIPTION:

GATCNCACCA GTNTNCTNCA NCCTGGGCCA CAGAGCAAGA CCTTGACTCA AAAACAACAA 60
 CAACAACAAC AAAAATTCCT GAAGATTTTG CATTCTGTCC CACTATCCAT TGGTTTTCAT 120
 GTCAAGATAA TGTGAGAAAT TCTTTACAAT TGCTTCCAGA AGGANTAGCC TTTTGATTTA 180
 GTGCACAGGT GTCCAGTCTT TTGGCTTCTC AGGCCACAT TGGAAGAAGA ATGCTCCTGA 240
 GCCACACATA AAATACACTA NTGNTAACAA CAGCTGATGG AGCTTAAA 288

SEQ ID NO:4394

SEQUENCE LENGTH:156

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05221

SEQUENCE DESCRIPTION:

GATCCTNCGT TCTNTTGTTA TAGATTAGTT TGCCTTTCCT ACAATTTTAT ACACATGGAA 60

TAATACTATA GGTACTCTTG TTTGGCTCCT NCCATCCAGC ATAATAAGTT TGAGATTCAT 120
 NCATGTTGTT ATATGCGTCT ATGTTCAATC CTNNNN 156

5 SEQ ID NO:4395
 SEQUENCE LENGTH:149
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 10 CLONE:HUMGS05223
 SEQUENCE DESCRIPTION:
 GATCCTNCTT TTCCTTCATG NCAGCACAAG TGCTCACCGG GGCCAGAGCC AGGGCATGGA 60
 TATGACAAGC AGGGCAGCCT GGACACTGCC CTCACAGGAC AGCGCCAATA ACAATACAGT 120
 GTCTGAGTAT CTCCAGGGGA AAAAATAAA 149

15 SEQ ID NO:4396
 SEQUENCE LENGTH:204
 SEQUENCE TYPE:nucleic acid
 20 TOPOLOGY:linear
 CLONE:HUMGS05224
 SEQUENCE DESCRIPTION:
 GATCCTGCTT GGNCTATCAC AGAGCATTGA CCATTGGCTT CCCTCATCTG AGNCGTGGGA 60
 GAGCANACTG GATAGATGAG AATTGTTTTA AAACAATTGT GAACAGAAAC TGNAGATGGT 120
 25 ACAGTNCAC ATCTGCACCT GCCCTTTTTT CATACCACAA AAGTATTTTT NNAGTACTGT 180
 ACTGGACTTT TTGCNAGTNN CTAN 204

30 SEQ ID NO:4397
 SEQUENCE LENGTH:213
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05227
 35 SEQUENCE DESCRIPTION:
 GATCCTGATG TATGAGGAAA AAGCGAGAGA AAAGGAAANG CCAACAGGCC CCCCAGCCAA 60
 GAAAGCTATC TGTGAGTTGC CCTGATTGA AGGGAAAAGG GATGATGGGA TTGAAGGGGC 120
 TTCTAATGNC CCAGATATGG AAACAGAAGA CAAANTTNTA AGCCAGAGTC AACAAATTAA 180
 NTAAATTACC CCCTCCTCCA ANAANTANTT TNN 213

40 SEQ ID NO:4398
 SEQUENCE LENGTH:67
 SEQUENCE TYPE:nucleic acid
 45 TOPOLOGY:linear
 CLONE:HUMGS05228
 SEQUENCE DESCRIPTION:
 GATCCATCTG AGGAATCACT CTGTGTTGCA CTTATGCCCT CATAAAANAT ATTTATTGAA 60
 GAATAAA 67

50 SEQ ID NO:4399

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SEQUENCE LENGTH:70

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05229

SEQUENCE DESCRIPTION:

GATCAATGCA TTTNATACGG ATATAGACCT AGGGCTCTGG AGGGTGGGGN ATTGTTAAAA 60
CACATGCAAA 70

SEQ ID NO:4400

SEQUENCE LENGTH:148

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05230

SEQUENCE DESCRIPTION:

GATCTCTATA GAGGCTGGAA TGGCCACAGA GAATCTAAAT NTGAAAACAA ACATGTCCTG 60
AGGGTGTGCT CCAATACCAC CCNNTAATAC TCTCCTGAGA TGTGAAGGCT NGAAATGAGA 120
ATGCCATNTT ATTGTNACTT NCAAACGN 148

SEQ ID NO:4401

SEQUENCE LENGTH:210

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05231

SEQUENCE DESCRIPTION:

GATCCTTGTT TTGAGTCTC AGAATCACTC AGACAACATT TTGTAAGTGC TGCTGTTGCT 60
TTCTACATAC ACCTTATAAA GTGACATTTC AAAAGAAATA AGGTGCCACA GTTTTAAACC 120
AGAAGGTGGC ACTCTGTGGC TCCNTGTAGT ATTATAGCTA TACTGGGAAA GCATAGATAC 180
AGCAATAAAG TACAGTAATT TTACTTTAAA 210

SEQ ID NO:4402

SEQUENCE LENGTH:71

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05232

SEQUENCE DESCRIPTION:

GATCCTGTTG CAAACTGTGA ATATTCTGAT GATGCCAGTA CAGTTTGATT TATTAAATGT 60
GGGTCCTCAA A 71

SEQ ID NO:4403

SEQUENCE LENGTH:240

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05233

SEQUENCE DESCRIPTION:

GATCTGAACC CGTCTCCCGG GTGCTGTAAA TAGTCTGATA AACGTTTACA CAGTCTAAAA 60

EP 0 679 716 A1

TTACCCCTTA TATTTGCTGA ATACAACTCA TCTTTTGTAG TTTAAAAATT CTATTGTTTT 120
GGAGCTAGCT GTGAGTTTCT AGAAGTGTAC AGAGTTGCTC CNGTGTTCCC GGGTCANGTT 180
GAGTAGGGAA TAAATAAATC TGATGCNGCC TCCTGAGGCT GCCGGGGGGT TTCTGCTAAA 240

SEQ ID NO:4404

SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05234

SEQUENCE DESCRIPTION:

GATCAAGNAT ATTTTTATT TTAAAGAAAG CATAACCAGC AATAAAAAATA CTATTTTTGA 60
GTCTAAA 67

SEQ ID NO:4405

SEQUENCE LENGTH:173

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05235

SEQUENCE DESCRIPTION:

GATCTAATTC CAAGGACTTC TCCACAGCTA AGTNAGATGC CTCANACCAT TAGGTGATGC 60
TTTGACAGA ACAGAGTATT TNAATCTTGT GTTAAAGCA ATTCCTTGGC TTCGGCTCCT 120
CACCACITTC TATGCCAGTN TCCCATTTAT GTCCCTAGTA ATGCCTATGC AAA 173

SEQ ID NO:4406

SEQUENCE LENGTH:263

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05236

SEQUENCE DESCRIPTION:

GATCCCAGCA GTGATGTTGG TTGAGGCAGC AAACAGATGG CAGGATGGGC ACTGCCGAGA 60
ACAGCATTGG TCCCAGAGCC CTGGGCATCA GACCTTAACC ACCAGGCCCA CAGCCCAGCG 120
AGGGAGAGGT CGTGAGGCCA GCTCCCGGGG CCCCTGTAAC CCTACTNTCC TCTNTCCCTG 180
GACCTCAGAG GTGACACCCA TTGGGCCCTT CCGGCATGCC CCCAGTTACT GTAAATNTGG 240
CCCCCAGTGG GCATGGAGCC AAA 263

SEQ ID NO:4407

SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05237

SEQUENCE DESCRIPTION:

GATCAGAATG TTCTAAATNT TGACTAGTTA CTTTTTATTA TGAGTTAATA TAGTTTAGCA 60
GTAAA 65

SEQ ID NO:4408

EP 0 679 716 A1

SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05238

SEQUENCE DESCRIPTION:

GATCTCTATA TTAAATNCTA AAATGGGATT AAAAGAAGAG TTGGAGAATT CACACTTATT 60

GAGTAACTGA TGTCATACAA CCTGGAATTT CTGAATTCCA AATAAATAAA TTTCACCTCTT 120

TAAA 124

SEQ ID NO:4409

SEQUENCE LENGTH:234

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05239

SEQUENCE DESCRIPTION:

GATCTATGCA GTATACATTT TNCAGGCTGA AATTCAAGGG GAATCATTCT GATTATNCTT 60

ACTACAAATG GAGATGGCTA TTATGAAACA GCATGAGCAT GAGCCTTTNA TCTNTNATAC 120

TTAGTGATAT ACTTTGCTTG AAAATCACTC AGCAAAGTAG TTCACATGAT GTGTTATCAT 180

ATTTGANGTG TGGNTTNTCT CAAAATCATT GNCTTTAAGG NGCTCATTNC TGAN 234

SEQ ID NO:4410

SEQUENCE LENGTH:191

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05240

SEQUENCE DESCRIPTION:

GATCTNTTTG TATGTNACGT GTTAAGGGCT TGTTTGGTAT CCCACTGAAA TGTTCGTGT 60

TGCAGACCAG AGTCTGTTTA TGTCAGGGGG ATGGGGCCAT TGCATCCTTA GCCATTGTCA 120

CAAAATATGT GGAGTAGTAA CTNAATATGT AAAGTNGTAA CATACATACA NTTAAATGG 180

ANATGCAGAA A 191

SEQ ID NO:4411

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05241

SEQUENCE DESCRIPTION:

GATCACCTGA GCTGCCTCAG ATTCCATTG GTCCTCTCCT TCCTGGAAGG CTTCTTTT 60

TGTTTTGTTT TAATCCCAAA TGTCTGAATG TTTTGCAAGT TGTAGGGGTT TGAGCCCCTT 120

GTTCATTCTC CTTCTTTTTT CCTCCCGCTT CCCTCTCCAT GAAGTGATTC TGTGACAAT 180

AATGTATACT GCGCGTNTCT TTCCTGGTT TATCTGCAGA AATNNCTCTG GGCTTTTNTC 240

GGTGTTAGAT TCAACACTGC GCTAAAGCGG GGATGTTCCA TTGAATAAAA GAGCAGTGTG 300

TTTTTAAA 308

SEQ ID NO:4412

SEQUENCE LENGTH:210

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05242

SEQUENCE DESCRIPTION:

GATCCACCCA CCTGGCCTC CCAAAGTGCT GGGATTACAG GCGTGACACN CAAACCCAGC 60
 CACCAATTTT ACTTTAGGTA AACTTTTATT TTCAAGCTTT TGTGGGTGTT GCAAGTGTA 120
 ATCTGTTTTA TAAATGTTC TATAAATATA ACCACTATTC CTTGTAAGCT ATTAAAAATA 180
 AATTTTAAAG TCTTTCAAGT AAACACCAAA 210

SEQ ID NO:4413

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05243

SEQUENCE DESCRIPTION:

GATCTGAATT TAGGNACATT TCCTTTTCT GTGGGAATCA CAAGAGTTTA TCCACTAAAA 60
 AAAGATATGT AAAAAAGATA CTTTCCAGCA CATAAATAA GGCTGGAATT TTACAACCTG 120
 ATGTATATAT TAGACAGTTC TAGGATGTTA GTTCCCTNCA TNCCAGAGCT ATGCTTGTGA 180
 TACAGCCCCT TTTCTTATAA AGTCAGTTAG ANGGACTTCC TTAACAATGA CTATTATAAT 240
 GNCTTNCCTA AAATACAGTT TTGTATTCTG TCAATGCAAA TATAAGACAG GTTGTGCCNT 300
 AATCATGTAN CANGNNTATT TTGNAGNTT ACATATN 337

SEQ ID NO:4414

SEQUENCE LENGTH:120

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05244

SEQUENCE DESCRIPTION:

GATCAGCTAG CTACCTTCTA CTTTCCATT TTCAAGTGGG TTGTTCTCTT AATTGTGATA 60
 TAACCTGTTG TCTAAATTTT ATGTACAGTC TTTTATAATA AACCATTCTC CTATATGAAA 120

SEQ ID NO:4415

SEQUENCE LENGTH:185

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05245

SEQUENCE DESCRIPTION:

GATCTGGCTC ATCCATCTGC AACTGACCA CGCTAAGAGC TGTCTGCAGT GATGGAAACC 60
 TTCTCTAGCT GTGCTGTCCT CTATAGTGGC ACCAGCTGCC TGTGGCTACT GAGCACTTCA 120
 ACTGTGGCTG CAGAGACTAT GTTAAATTGT ATTTAATCAT AATTAATTTA ATTGTAAACA 180
 ACAA 185

SEQ ID NO:4416

SEQUENCE LENGTH:58

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05246

SEQUENCE DESCRIPTION:

GATCTTAAAA TTCGTTTGCC TTTTAAAGC TATATTAATA ANGATTGTT GAATCAAA 58

SEQ ID NO:4417

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05247

SEQUENCE DESCRIPTION:

GATCCACAAG ATTNAGAAAA TATTATATAG TTAGATAATA ACATTCTTGT CTAATGATAT 60
CCNANCTNGT TACAAAATTN TTTAAAACTT AAATAAAAAAC ATGCATCTN 109

SEQ ID NO:4418

SEQUENCE LENGTH:363

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05248

SEQUENCE DESCRIPTION:

GATCCCTCTA CAGAGCTTCC CTGACTCATT CTGAAGGAGC CCCATTCTTG GGAAATATTC 60
CCTAGAAACT TCCAAATCCC CTAAGCAGAC CACTGATAAA ACCATGTAGA AAATTTGTNA 120
TTTTGCAACC TCGCTGGACT CTCAGTCTCT GAGCAGTGAA TGATTCAGTG TTAATGTGA 180
TGAATACTGT ATTTNGTATT GTTCAATTG CATCTCCCAG ATAATGTGAA AATGGTCCAG 240
GAGAAGGCCA ATTCCTATAC GCAGCGTGCT TTAATAAATA AATAAGANAC AACTCTTTGA 300
GAAACANCAA TTTCTACTTT GAAGTCATAC CAATGAAAAA ATGTATATGC ACTTATAATT 360
TTN 363

SEQ ID NO:4419

SEQUENCE LENGTH:266

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05249

SEQUENCE DESCRIPTION:

GATCACATTC AGGATAAGTG TACAGAAGAA AATACGGGTG TTTACTCTTT AGGGAAGTGG 60
AAACACTCCC TGCATTGATG TACATTTTAA GAATGGCACT TTTGATACAT GTTATCATAA 120
AGGTGCTTAA TAGAGCTGAA TTAAGTTTT TCAAATCTGT AAACANNGCA AAAANGTAAA 180
TTGTAGTCAT TTGATTATTT TTTAAATNGG NGCTTTATAT TTNGTNTCA CTCAGAGTAA 240
AAGCTGCAAT TTATTGTNCA CCCAAA 266

SEQ ID NO:4420

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS05251

SEQUENCE DESCRIPTION:

GATCAAAGCA ATTTACAGAT TCAATGCTAT TCCTGTCAAA CCACCTATGA CATTCTTCAC 60
AGAACTAGAA GAATAAACTA TTAAGAGTTC GTATAAAGTT TAAA 104

SEQ ID NO:4421

SEQUENCE LENGTH:256

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05252

SEQUENCE DESCRIPTION:

GATCTCAACA GTGTGGGGTG AACAGAAGA CTGTATCTTC AGCCTTTTTC CTATAATCAT 60
GGATGATTG GTCTTATTCA AAAGGACCGC ACATATTAGT ACTCTTAAGA GCATCTTCCA 120
AGACTCCAGC AGNGAGCATT TAGAGAGTGT GTTGTCTTCC AGAGTCATGA ATGATTTTGT 180
TTAGCTATCA GGTCTACTAC CTCTAAGGAC ATTCATAGC AGCATCTCTT GAGTTGCCTG 240
CATCAGTGTG GTGGTN 256

SEQ ID NO:4422

SEQUENCE LENGTH:255

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05253

SEQUENCE DESCRIPTION:

GATCTGAATA TAATTCTGGT AACAGCTGT CTTCATTTT NTCCTCTAAA GAACTTAATT 60
CATTGTGTTAC ATAAAATATA AGGAAATCTT TGTACTATTT TACAGTAACC ACAATCTAAA 120
TATTTACATA TACCCAAAT TANCCTATGC TCATATATTA GGATGTGAGA NTATCATCTG 180
TTTATGGACA CATGAAACCT CCTAATGACC TGGAAATTGT AGANTATNTG ACTTTTATA 240
TGCAAAGTTT TTCGN 255

SEQ ID NO:4423

SEQUENCE LENGTH:58

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05254

SEQUENCE DESCRIPTION:

GATCCCCGGT GGTTTTGTGC TCAAATAAA AACTGATTAA ACCTTTGTGG CTGTGAAA 58

SEQ ID NO:4424

SEQUENCE LENGTH:234

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05255

SEQUENCE DESCRIPTION:

GATCCTTTTC TTCTCTTATA AATCATCCTC TTAATGAAAA TTAGCCTAAC AAAAGTTTGG 60
AGACTGGAAT CCTACTTTGA GCCACTGACT TGAAATAACT CTTTGGCAA GTTGCCTGAC 120

ATCCTGTCTT ACCAAGGTGG CAGGTTTGCA TTTTACTGC TAAAAACATT TTTNTTTTTT 180
TAACCATCTT NANCCAAATT NATCATATNN GNGGTNGGCC TANCAGGNTT TTNN 234

5 SEQ ID NO:4425
SEQUENCE LENGTH:200
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS05259
SEQUENCE DESCRIPTION:
GATCCACCTG CTCAGCCTC CCAAANTGCA NGGTATTACA GNCANGAGNT TCTGCGTCTG 60
GCAATAATGT AACTTTGAAG CTTAAAAATT AATCCCAGTT TGTAGCAATA ACAGAAGACT 120
ATCTACAACG GAAGAAAGAA GCAACTGCCT TACAGTTCTG TAAAGANTTG GCAAGAAAAAT 180
15 AAAGCCTATA GTTGCCGAAA 200

SEQ ID NO:4426
SEQUENCE LENGTH:84
20 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05260
SEQUENCE DESCRIPTION:
GATCTAGTCA TCTTCTGTAG CTACATAGTA CTCCTAATGT TAAGATTACC AAATTCAGCA 60
25 ATAAAGCCAA AATCAAAACT GAAA 84

SEQ ID NO:4427
SEQUENCE LENGTH:75
30 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05262
SEQUENCE DESCRIPTION:
GATCATAAAC CAGTGNNAATC AGACCTATGT GTAATAAGAC TCCTGTTAAT AAAAAAATAA 60
35 AAAGCTAAAA GCAAA 75

SEQ ID NO:4428
SEQUENCE LENGTH:424
40 SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05263
SEQUENCE DESCRIPTION:
45 GATCTCAAAC TTGTCTTAAA TCAACAACCT TCTACTCATG TTAATGTCTT GATTAAATAT 60
CACAATGCAA AATACACATT AAGTAAAAGA ATTCCAGCTG GTAAACATGA CCTGGACATT 120
TGTAAGAATA TATTTAATAT ATGTNCACCC ATTATGTTTT TAGGTAACAG GNGGNNAAT 180
GCANCNCAAT TTTTTTCTC TTGAAAGGCA CTGTCATTTA ANCATAAACC TGGAGTACTC 240
GAAATAGAAT TCAGGTTTAC ANGATGAAAG CGTGTGGAGA AGTGTGAGAT GGCAGTGGNA 300
50 GCATGTGTGT TTCTAAAANG TAAANTCTC AAGGAAACCA NGANATGGCA TGCTTTTACC 360
CATCTTNCCT TAGTGAAAAG NGTGCTTCAG GTTTGANATT GTTTTAAGAA AGNTAGCCGG 420

55

GNTN

424

SEQ ID NO:4429

SEQUENCE LENGTH:122

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05264

SEQUENCE DESCRIPTION:

GATCTGCTCC CTCTCGCTCT CTCCTCCAC TACTTTTGG AACAAAGTGA TGGCAGAATG 60
 CGGTGGTGGT GGGGGTCTT TGTACTGTTG GATTAATAAA ATGATTNAA ATTNCNNNTA 120
 AA 122

SEQ ID NO:4430

SEQUENCE LENGTH:85

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05266

SEQUENCE DESCRIPTION:

GATCAGTATA ATTTTNAAG GTTACTTTGT NAGAGGCACA AAAGGGTTTA AACTGNTTCA 60
 TAATAAATAT CTGTACTTCT TCAAA 85

SEQ ID NO:4431

SEQUENCE LENGTH:187

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05267

SEQUENCE DESCRIPTION:

GATCACGTAG ACATGTAACC CAGCAGCAGT TTGCTTCTGT TGTCCACTGA TTAATCAGCC 60
 TATGTGCCGTG AACTGGTCT TGCAGTACAA CTGNAAGCCA AAACAAGGTG GAAGATGTCC 120
 TGAATTAAGA TGTTCACAC ACATTGTATT ACAGAGACAG CCAATAAATC TACTATTTGA 180
 TTTCAAA 187

SEQ ID NO:4432

SEQUENCE LENGTH:211

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05269

SEQUENCE DESCRIPTION:

GATCTTTTAT TTNTGAAACA CTCAAACACC TTACAAAGTG CTGAGTAGGT AATAGTGACC 60
 CAACTTGTTT GCTAAATGAT TATTTGTTTA AATCTGTACA GTTTAAAGTG TTCACTTATA 120
 CAAAGAGTGT ATATACTTTC AAATAATTNA AAATGCTTTA NATTATNNGG CTAGAAATTG 180
 CNGTTTTNAA TAAATGTGAA TNTNTNAAAA N 211

SEQ ID NO:4433

SEQUENCE LENGTH:62

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05270

SEQUENCE DESCRIPTION:

GATCTGTTGT TAGGATTCTA GTTAACACTT TTNTTTTAA AAATAAGGA CAAATGAACA 60
AA 62

SEQ ID NO:4434

SEQUENCE LENGTH:98

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05271

SEQUENCE DESCRIPTION:

GATCCCAGGG GAGGGTCTC TCTCCCATC CCAAGTCATC CAGCCCTTCT CCCTGCACTC 60
ATGAAACCCC AATAAATATC CTCATTGACA ACCAGAAA 98

SEQ ID NO:4435

SEQUENCE LENGTH:239

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05272

SEQUENCE DESCRIPTION:

GATCGTATCC CGCTGACACA GAAGGNTGCC GGGTGGGGG AGGGCACCCA TGAAATTCAA 60
AGAAAACCT AAGTGTGGAT GTTCAGAATT TTGGAAAAAT GTCAGTGAAG TGATTGAAAG 120
AGTGCCTGGC ATGCAAGGNT AAGAGGTTCT TTACATAACA TTTCTAAAT GCTTAATAAA 180
CGTTTGTTC ACTTGGTTT GACATTGCCA ATGGGGTTG AACCAGTGCT CTCTCTAAA 239

SEQ ID NO:4436

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05273

SEQUENCE DESCRIPTION:

GATCTGCAAT GACTGGAAT TGCCGGTGCC TGGGGTGCCT TTCCCCCAGC CAGGGTCCAA 60
AGAAGCTTGG CTGGGGCAGA AATAAACCAT ATTGGTCGGA AA 102

SEQ ID NO:4437

SEQUENCE LENGTH:333

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05274

SEQUENCE DESCRIPTION:

GATCTTCTTT TGGGAGGATT TGATGTAAGT NACTGACAAG CCTCAGCAAA CCCAAAGATG 60
TTAACAGTAT TTTAAGAAGT TGCTGCAGAT TCCTTTGGCC ACTGTATTG TTAATTNCTT 120
GCAATTTGAA GGTACGAGTA GAGGTTTAAA GAAAAATCAG TTTTGTNCT TAAAANTGCA 180

EP 0 679 716 A1

TTTAAGTTGT AAACGTCTTT TTAAGCCTTT GANGTGCCTC TGATTCTATG TAACTNGTTG 240
CAGACTGGTG TTAATGAGTA TATGTNACAG TTAAAAANAA AAGTTGGTAT TTTATANGCA 300
CAGTCAATNC TNATGGTAAC TTTTGGTNGT CTN 333

SEQ ID NO:4438
SEQUENCE LENGTH:72
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05275
SEQUENCE DESCRIPTION:
GATCAATGTT TCAGCCCTAG ACTGCCCAAG GAGTATTATT AATTATTAAT AAATGAATTC 60
TGTGCTTTTA AA 72

SEQ ID NO:4439
SEQUENCE LENGTH:100
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05276
SEQUENCE DESCRIPTION:
GATCAGATTA TTTTACTACC AACAGTTATA GTTTGAAAGT CCAACTGTAT TAATTGACTG 60
ATAATATGAT AATATAGAGA TTAAATTGTT TGTNTTCAAA 100

SEQ ID NO:4440
SEQUENCE LENGTH:96
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05278
SEQUENCE DESCRIPTION:
GATCACAAAG AGCAAACAAA TGTCAATATC TCTTATGAAT GGTGAAAAAA AGGAATTAAT 60
CGATGCAAAT AAACTTTCA CAGTATTACT TTAAAA 96

SEQ ID NO:4441
SEQUENCE LENGTH:116
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05279
SEQUENCE DESCRIPTION:
GATCTAGCAA GCCATGGCGA CAGGTAGCAT TTNTAAGATG NTGNACAGGA GCAGNATTAT 60
CCCCAAAGAT ATTACAGGGT AGACACGTTT TAACTAAAAT CAATCAAGNT AACTTN 116

SEQ ID NO:4442
SEQUENCE LENGTH:411
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05280

SEQUENCE DESCRIPTION:

5 GATCTGACAT ATATCACCTT CTGGGNTATT TACTCATTGT GCCAGGACCT GGCATTTTCA 60
 TGTGCCTTTG ACCAAGTGTT CAGAATTTGC TTGNCTCTAA CCTGGAGAGC TTCTTAAGTG 120
 ATGCCCCCTC ATGGAGCTTC TATGACAGTG AATAAACTAT TAATTGAAGG AAAATGTTAT 180
 AATTAANGTA TCTATTTGCT GCATTGTATA TGGATTAANT GNTAAAAAAC AAGTAATCTA 240
 CCCTCAGAGC CATGTATTTG AGAATGCTTT CAATCATATT TNCCTATGNA CTTTTTTTTT 300
 ATAAACTTAG TTTTANGCCT ATGTTGTAAA ANTGGGAAGG TTNGTAAACN TATGTTTGGN 360
 10 AAAANTAGGG GAAATGTNGG CTAAANTTN TTTNCANTT ATNTTNGTTT N 411

SEQ ID NO:4443

SEQUENCE LENGTH:90

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS05281

SEQUENCE DESCRIPTION:

20 GATCTATCTG GGGGTCCTAG TGTACCACAA GCTGAACCTG AAGATTTGGA AAAATGTTTC 60
 TAATTAATAA AACAGAGCA AAAAGACAAA 90

SEQ ID NO:4444

SEQUENCE LENGTH:342

SEQUENCE TYPE:nucleic acid

25 TOPOLOGY:linear

CLONE:HUMGS05282

SEQUENCE DESCRIPTION:

30 GATCTACATT TAAGTGGAAG AATTAGCAGT ATTTGAAAGC TCAGTTTNA TCATTGTCTT 60
 AACTTCAGAT ACAAATAACT GAACAGAAAG TTTTAACCTT TAATATCTCA TGtNCTGTTT 120
 NTTATTAGT ATTTTCCTNT ATGTTAATTC AATTATATAC TTCTGAATGG CACCTTACTT 180
 TTTGGAACA AATCTTCTGT TATTACAAA ATAATAATT TTANAAAACA TTTAAAAAAA 240
 ATCCAAAGCT GCTCTCGATA ATAGCAACA TTTGCATATA TATGGAATTT CTTACTTTNT 300
 35 TTCTCCCAAA CTCTATTTAA TAACTNATT TTAATGGTTA AA 342

SEQ ID NO:4445

SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

40 TOPOLOGY:linear

CLONE:HUMGS05283

SEQUENCE DESCRIPTION:

45 GATCACAAAA ATGTATTTTA TAAAATGTTT TGTACAATAA AGTTACACCT CAAAGTGTA 60
 A 61

SEQ ID NO:4446

SEQUENCE LENGTH:301

SEQUENCE TYPE:nucleic acid

50 TOPOLOGY:linear

CLONE:HUMGS05284

55

SEQUENCE DESCRIPTION:

GATCATTATC AGTAATTTCA TAGCAACTGT TCTAGNGTTT TGNGTTTTTA AAACAGAATT 60
 AGGAATTTGA GATATCTGAT TATATTTTTC ATATGAATCA CAGCTGTTGA CAATGTCCCA 120
 TATATTTAAG AAATTATATC ATACTGATAC TATTTGTAAC ATTTTGATTG GATTTAATCT 180
 CCAGGGACAG AAATAATTCA TTGGTAAAGN GTAATAATGC GTTTTTTAAA AATGCTTTGA 240
 GAGGTAATTA CTTGCATATG AGAGAAATAA AACATTTGGC ACATTGTTTA CAGGTGTGAA 300
 A 301

SEQ ID NO:4447

SEQUENCE LENGTH:153

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05285

SEQUENCE DESCRIPTION:

GATCAGACCG AGAAGCAGGG TGAGAGATTC TAACGACTGG ATGCTGCTAG TAACACATTG 60
 TTTGTATTGC TTTACCATT TTAAGTGTGA GATTGAGAT GAACATACAT TTTGCTTTT 120
 TAATAAATGT TTAAGAAG TCCACATAAG AAA 153

SEQ ID NO:4448

SEQUENCE LENGTH:216

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05286

SEQUENCE DESCRIPTION:

GATCACTACA GTGAAGTATT ACAGTTGTAC AGTTCCAGT CTGGCCTTGG CTGCTCGGA 60
 TAAAACTTGG TATGTATTTT GTATGGCATA GATTCTATAT TGTAATGATG TCCTATGCAA 120
 AAAGAAAAAT TAACGAAATT GTAAATTTTA TTGTTTAAAC GTGTATGCAT GTTTAGTGAC 180
 GTTTACATTT TGAATAAAAA TTTATGATTC ATTAAA 216

SEQ ID NO:4449

SEQUENCE LENGTH:172

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05287

SEQUENCE DESCRIPTION:

GATCTGGAAG CGTTTGTAC CGATTATCCA CAGCAAAACA AAAATAAGCT TTTATTTTAT 60
 TAATAATTTT GTTCTCTTGG TGCCCAATCA AATCTTTTAG GAACAACTG CAAGAAAAGC 120
 TAAGAATGTT TTAGAGTGAA CTAAATACAG ACATTGCTTA CTTGTTTGA AA 172

SEQ ID NO:4450

SEQUENCE LENGTH:289

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05288

SEQUENCE DESCRIPTION:

GATCTCCCTG TGGCAGCAGG CATGGAGAGT CAGGGGTGCC TTCATGGCAG TAGGCTCTAA 60
 GTGGGTGACT GGCCACAGGC CGAGAAAAGG GTACAGCCTC TAGGTGGGGT TCCCAAAGAC 120
 GCCTTCAGGC TGGACTGAGC TGCTCTCCA CAGGGTTTCT GTGCAGCTGG ATTTTCTCTG 180
 TTGCATACAT GCCTGGCATC TGTCTCCCT TGTTCCTGAG TGGCCCCACA TGGGGCTCTG 240
 AGCAGGCTGT ATCTGGATTC TGGCAATAAA AGTACTCTGG ATGCTGAAA 289

SEQ ID NO:4451

SEQUENCE LENGTH:121

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05289

SEQUENCE DESCRIPTION:

GATCTCTTAA AAATACCACA GTTGTATTT TTCCTTTAAG GAGTAAAGAT TTGCCTTTAA 60
 ATAATTGGT ATTTTCCTGG CTTTCGTTA ATACAATAGA AAATAAAGTA TTACACCGAA 120
 A 121

SEQ ID NO:4452

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05290

SEQUENCE DESCRIPTION:

GATCAATGTG ACGGCAGGGA AATGTATGTG TGTCTATTTT GTAAGTGTAA AGATGAATGT 60
 CAGTTGTTAT TTATTGAAAT GATTTCACAG TGTGTGGTCA ACATTTCTCA TGTGGAAGCT 120
 TTAAGAACTA AAATGTTCTA AATATCCCTT GGACATTTTA TGTCTTTCTT GTAAGGCATA 180
 CTGCCTTGT TAATGTTAAT TATGCAGTGT TTCCCTCTGT GTTAGAGCAG AGAGGTTTCG 240
 ATATTATTG ATGTTTTTCAC AAAGAACAGG AAAATAAAAT ATTTAAAAAT AAA 293

SEQ ID NO:4453

SEQUENCE LENGTH:336

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05291

SEQUENCE DESCRIPTION:

GATCTAGGTC CTTCTATCTC GTCCCTCTAC AGATGTATTT TCCACTTGCA TAATTCATGC 60
 CAACACTGGT TTTCTTAGGT TTCTCCATTT TCACCTCTAG TGATGGCCCT ACTCATATCT 120
 TCTCTAATTT GGTCTGATA CTTGTTTCTT TTCACGTTT CCCATTCCC TGTGGCTCAC 180
 TGTCTTACAA TCACTGCTGT GGAATCATGA TACCACTTTT AGCTCTTTGC ATCTTCCTTC 240
 AGTGTATTTT TGTTTTTCAA GAGGAAGTAG ATTTAACTG GACAACTTTG AGTACTGACA 300
 TCATTGATAA ATAACTGGC TTGTGGTTTC AATAAA 336

SEQ ID NO:4454

SEQUENCE LENGTH:252

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05292

SEQUENCE DESCRIPTION:

GATCTGCTGC AACCATATC TTNGTTCTTG AGTTCATCAT GCATTAAAA TGAGATGCAA 60
 5 GAGCATTAG CATACCATGT AAATATGGAC CTTTTAAAT TAAATACTA TTGGAAGTGC 120
 TTTCAACTCA GCCACATCTT AGCTATTAGT TCTTTGTGTT GTCTTATCAA AGTTAATGG 180
 ATACAGTTCC ACAGTTGTTG ATGTGTTTGT GTGTATATTC GATTNNNNA AAGATGGTAG 240
 TAAGTCAATA AA 252

SEQ ID NO:4455

SEQUENCE LENGTH:57

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05293

SEQUENCE DESCRIPTION:

GATCATACCA CTCCACTCCA GCCTGGGCAA CACAGCGAGA CTCCATGCTC CCCCCAA 57

SEQ ID NO:4456

SEQUENCE LENGTH:564

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05294

SEQUENCE DESCRIPTION:

GATCAGGCTC TCCTCATGCT GTTTAGTGAT GGCAGTGTCC AGGTGAACTN CTACGGGGAC 60
 CACACCAAGC TGATTCTCAG TGGCTGGGAG CCCCTCCTTG TGACTTTTGT GGCCCGAAAT 120
 CGTAGTGCTT GTACTTACCT CGCTTCCAC CTTCCGCAGC TGGGCTGCTC TCCAGACCTG 180
 30 CGGCAGCGAC TCCGCTATGC TCTGCGCCTG CTCCGGGACC GCAGCCAGC CTAGGACCCA 240
 AGCCCTGAGG CCTGAGGCCT GTGCCTGTNA GGCTCTGGCC CTTGCCTTTG TGGCCTTCCC 300
 CNTTCCTTTG GTGCCTNACT GGGGGCTTTG GGCCGAATCC CCCAGGGAAT CAAGGGACCA 360
 GCTTTACTNG AGTTTGGGN CGGGNTTGT TCGNTGGNT TCCTACCCCA TNTCCAAGAT 420
 AAGCCTTNAG CNTTAANTCC CANGNTAGG GGCCTTATT NATGGACCA TTTTAAATT 480
 35 ATTNTAAGAA ANTTNTTTA NTTGGGGATT TTAAGCCAA AGGGGGGCC TCNTCCTNAG 540
 GTNANAAAAA AATTTTTTAA GAAA 564

SEQ ID NO:4457

SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05295

SEQUENCE DESCRIPTION:

GATCTTTATT TTGATTAAT TTGTTCTGAT TTTTGGTTT GTTTTTTAAG GAACTGIAAT 60
 45 GAACAAATGT CAGGATATCC AATGCCAAAT AAAGATGTTG TATTTATTTA AA 112

SEQ ID NO:4458

SEQUENCE LENGTH:152

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05296

SEQUENCE DESCRIPTION:

5 GATCACACCC NGGTGAACCC ANGGTGCTAA GANTGAAAAT AACCTTGGTG AAATGTACAA 60
 NTTAAAGACA AAGAACTACA TGTGAAGATA GACTTGCTTT CTATTTTNAATCAGTAGTA 120
 GTACTGTTGC TGAATAATAC TAGGTTTTNN CN 152

10 SEQ ID NO:4459

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05297

15 SEQUENCE DESCRIPTION:

GATCTGGTGC TGCTTTCAGA TGTTTATCTT TTATTTTTTT CCCTTAAGCT TTAATCTTCG 60
 TCATTGTCTT AAAGTCAACT GGTGTTTCTT GTTCATTGAC TTGGGTACGA TGGTGCTTTG 120
 CAAGGATGTA TTTATGTTAT AATGGCCAAC ATTTGGTCAG CCCTTGTCCTA CTTATTCAGT 180
 20 TCCCTCCNTT TGTAATAATA GTGCTTTAAT TATAAACTGT ATAAAAATAC CTTGTATAAA 240
 CCCCTTTTTT GATTATTACA ATAAATAAGC TGAATTGTAA CAAATGAAAT TTGATTTTGG 300
 TAATAAAACA GTGGAAAAAGT AAA 323

25 SEQ ID NO:4460

SEQUENCE LENGTH:229

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05298

30 SEQUENCE DESCRIPTION:

GATCCTTTTT AGTTAATACT ATGACAGTAC TAAAAATATA TGAATAACAT TTCAGATACC 60
 ATTATATTAA AATATTTGTG TATGTGTACA AAAGCGTTGA TAAATACTAA TCTTTAAAGT 120
 TTGTGGAGTT CCTTTATTTG TAATATATGT GCTCTTAAAA GCAATGGGAT GTGAAATTAT 180
 35 GAAAGTATTT TATTGTTTAT AGAAATAAAA AACACAGTTA CTTTGCAAA 229

SEQ ID NO:4461

SEQUENCE LENGTH:135

SEQUENCE TYPE:nucleic acid

40 TOPOLOGY:linear

CLONE:HUMGS05300

SEQUENCE DESCRIPTION:

GATCTGGACC TAATGAATTC CTCAGAAAAAT TCCCATGAGT CAGCTGATTT CAGTGCTGCT 60
 45 GAACTAATTN CTGTGTCTAA ATTTCTTCCT ATTTCTGGAA TGGAAAAGGA GGNCATTCTG 120
 AGCCACACTG NNNNN 135

SEQ ID NO:4462

SEQUENCE LENGTH:102

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

EP 0 679 716 A1

CLONE:HUMGS05301

SEQUENCE DESCRIPTION:

5 GATCTGGGTA AAGGACCATC TGGGGATTCT TTGTACTATT TTTCTTTCCG CAACTTTTCA 60
AGTTTCAAAC TATTTGCAAA TAAAGAGTTT TTGTTTGTTA AA 102

SEQ ID NO:4463

SEQUENCE LENGTH:189

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05302

SEQUENCE DESCRIPTION:

15 GATCACATGG CTAAGGTGGT GTGTGCCAGG TTTCTCCACT GTAAAATTAG GAATTTTCCC 60
TTTGAAATTA ACAAGAATCT TCCACTTTGA AGCTGTGTGA ATGTCTTATT CTTAAAAATT 120
TGCCTACTGA TTTNANNNN CATCATCAAT GATTCTTGCT TATAACAGGT ATTAATGTTA 180
TGCTTGAAA 189

20 SEQ ID NO:4464

SEQUENCE LENGTH:364

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

25 CLONE:HUMGS05303

SEQUENCE DESCRIPTION:

30 GATCATGTTA ATTTAAAGCT TTATACACAT TGTGTTTTTT GCTGGTCTCA TCTTTGGTAA 60
TATGCTATAC CCCACTGCTG CCCGACACTG CCCTNTAGCT GCAGAGCTGG ATTAGCTGTT 120
GACCAATTGA TGCTGTTGTC TGTCTGGCAG GGAAGTGAATG ACCTGATGTC AGATTTAGAT 180
TCTTCCTGGG GATTACACAG CTATGAATGT ATTTGCTTCT AAAACCTCCC AAAGTGAATC 240
TAATCTTAAA ACTACAAGTT GTAAGTATTC TGAAATTGGG AAACATTTAT NTNAAATGCA 300
ATCAGGNAG TGTGCTTTT TACAGCATAA TNAATATANG TNTCAANNAN NGTGGANGGT 360
NGTN 364

35 SEQ ID NO:4465

SEQUENCE LENGTH:229

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS05304

SEQUENCE DESCRIPTION:

45 GATCACTTGA TGTCAGGGAG TTTGAGACCA GCCTGGCCAA CATGGTGAAC CCCATCTCTA 60
CTAAAAATAC GAAAATTAGC TGGGTGTTGT GGTAGGCACC TGTAATCTCA GTTACCTAGG 120
AAACTGAGGC AGGAGAATCA CTTGAACCTG GGAGTTGGAG GTTGCAGTGA GCCAAGATTG 180
TGCCACTGCA GTCCAGCCTG GGTGATGAAA CAAGACTCTT TGTCTCAA 229

50 SEQ ID NO:4466

SEQUENCE LENGTH:496

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05305

SEQUENCE DESCRIPTION:

5 GATCTCTAAG GAACCTCTGT TGCTAAATAT GAAGAGTATG GAACATTCAT ATAGTCTCTG 60
 TGAAGCATGG GGGGAGGGAA GACATTTCTN TTNCTTATAG GCTTTATGCT CAAATGTCAT 120
 AGTCTCCTTT CAAAGAATTG TGTTCATT TAAATGCACC CAGCTTAAGT AGAAGACATT 180
 GAAGGATGCA TTAATTTTCA GGAACATTTT TGGATTATGA AAAGATTCCC AATTGAAAAA 240
 ATTATTCAAC AAGTAAAAGC TAAGAAATTN CATTGAAATC ATAATGGCAG TTAAAGCATA 300
 10 AATTGATAA ANAATAGCTG TGTAATACTA AATTAATTAG GAAAATTCNA TTCCAANCCC 360
 AAGNNGAAGG AGTCCANGGT GGAAATATCC GGTTCGGTTT TATTTGNNC TTAGGNTGAN 420
 GTTTCCTTT GGTNAACCGN TTGNNTTTT TATTAAANAT NGNTTAATTA TTTTNGGTT 480
 AANGNTATGC CCCNTN 496

SEQ ID NO:4467

SEQUENCE LENGTH:415

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05306

SEQUENCE DESCRIPTION:

20 GATCTTGGGA GATATTAATA TCTGCTGGCC AGACCTAAAA AAACTGAAG GCCCAAGGAA 60
 AGTGACTGGA CTCACTGGAA AGTNTCTAAC AAATACTTTG GATTCCAAAG TATTTCCAAT 120
 25 ACCTTGAAGA TTCCTTTGAA AACATCAAAG CACAACTCA AATCTGCACA AGATTACAAA 180
 AGCACAATTT TGGTGTATT TTTAGANTNC AATACACAAA GCTATTGTTC ATTTCTNTCA 240
 GCAAGCATT TCCTGGGTAG TAGTAATAGC TTAGGAATCA AATGCCACTT TTNTTTTCC 300
 TTTTTCAC TAGTTTGAAG TACCACAANT NACAGGTNAG TCAGTCTCC CAGAGGNNA 360
 NGGNCAGTCC TAGGGNGNA TCAACAGGNC TNGCAAGNCA AGNCCCACAA NTTNN 415

SEQ ID NO:4468

SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05307

SEQUENCE DESCRIPTION:

35 GATCGCAAAT TGAAATATGG ATATTTGTAC CAGGCTGCGT GTTTTTCATT TTAACACAC 60
 AAGATTTAAT TGAAAGGACA TCAATAATCA TAATTGTGTA TTTAACAGGT GGTNTNTAT 120
 40 TAGTTTTCTN GTGTTTCAGA CTTTATGCAG CCATATAAAC TGTCTCTAG GCATGCTGTG 180
 ACATTTTAAT AAAAAGCAAA AGGAGCAAA 209

SEQ ID NO:4469

SEQUENCE LENGTH:353

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05308

SEQUENCE DESCRIPTION:

50 GATCGCACCT TTTATACCAG AGACCTGAGG CAGATGAAAT TNATTTCCAT CTAGGACTAG 60
 AAAAATTGG GTCTCTTACC GCGAGACTGA GAGGCAGAAG TCAGCCCGAA TGCCTGTNAG 120

5 TTTTCATGGAG GGGAAACGCA AAACCTGCAG TTCCTGAGTA CTTTCTACAG GCCCGGCCCA 180
 GCCTAGGCCC GGGGTGGCCA CACCACAGCA AGCCGGCCCC CNCTCTTTTG GCCTTGTGGA 240
 TAAGGGAGAG TTGACCGTTT TCATCCTGGC CTCCTTTTGC TGTITGGATG TTTCCACGGG 300
 TCTNACTTAT ACCAAAGGGA AAACCTCTCA TTAAAGNCCG TATTCTTCT AAA 353

10 SEQ ID NO:4470
 SEQUENCE LENGTH:64
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05309
 SEQUENCE DESCRIPTION:
 15 GATCCTCTAA CACTGTACTA AAACATTCA ATAAATCAT TCTGACTGCG TTCATAAAAA 60
 CAAA 64

20 SEQ ID NO:4471
 SEQUENCE LENGTH:169
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05310
 SEQUENCE DESCRIPTION:
 25 GATCTATTAC TGACCGTATG ATGAGGCCAA CTTTTTNCC TTGTGGTTAG CAAGACTGCA 60
 AGAGATGGAA AAAAAGTAGT TTGAATGTTT TGTGTGTAAG GAGTATACCA TGAGATGAGA 120
 TGACCACCAA TCATTTCCTT GGGGGGAGGG GGTGTCTGCA CCNTAGAAA 169

30 SEQ ID NO:4472
 SEQUENCE LENGTH:132
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05311
 SEQUENCE DESCRIPTION:
 35 GATCACTTGA ACCCAGGAGT TTAAGTCCAG TCTGAGCAAG GCAGTGAGAC CCTGTCTCTA 60
 AACAATAAAA ATTAAATAA GTATTATCGA GAGTTCCTGG AGGGGTGAAA TTAAAGACTT 120
 TCAAAACTTA AA 132

40 SEQ ID NO:4473
 SEQUENCE LENGTH:328
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 45 CLONE:HUMGS05312
 SEQUENCE DESCRIPTION:
 GATCACCAGG CTGCCCAAGG GTGCTGTGCT CTACAAGACT TTTGTCCACG NGGNTCCTGC 60
 CAAGCCTGAG GGCACCCGTC AAACCTGGTAG CTATGCTTNG ATGTCCTGTT GAGGCCATCG 120
 GACAGAGACT GGAGCCANG TGACAGGAGA TGGTGATACC AGAAGTCAAG GGTGGGGTG 180
 50 GCGACACGGC CTCCCGAGGA AGAGGTCTGC TTGATGGTGA CTCTGCAGGA GACTCTGAAG 240
 TGACTGCTGG GAAACCTTT GGGAGACCTN ACCTGNGGCC AAAANTAAAG TNNGCCAGCN 300

55

TCATGAACCG CATNCTATTT AAGGGAAA

328

SEQ ID NO:4474

SEQUENCE LENGTH:307

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05313

SEQUENCE DESCRIPTION:

GATCTGGACA TGCTGTNACA AGAAATAGTG ACCTTGGGGA ATATGTACAG AAAAGACCTT 60
 TTTCTAAGAG TTGGGAGGGG GTGGGGGACT GTATAATGAA AAGAATTAGC TTACAAAAAA 120
 GAAATTGATA TTCAAAGTAT TTTAGGCAAA GCCAGTCAAA ATGCTTTCAT GATATTTTGA 180
 GATGTAATTT TGTCTGATT TGTATTGTNC TTTTCATTG CCTTCTTAAC TTTATATGTG 240
 ACCTGAATTT TCCATAACTT GATGACTATA GATTGCACCT AGGCATTCCA ATAAAAGCCA 300
 ACCCAAA 307

SEQ ID NO:4475

SEQUENCE LENGTH:133

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05314

SEQUENCE DESCRIPTION:

GATCGTAAAA ACATGTCTTA TGCGGAACCTT TCATGTCAGA TGCCTGGAGT GTGAAGTGTT 60
 CATTGGACAT TCCATTTTAC TGTTCGAAGT ATGGACTTAC ATATCAAATT AAAAGGCTCT 120
 TTTGTTCTGC AAA 133

SEQ ID NO:4476

SEQUENCE LENGTH:130

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05315

SEQUENCE DESCRIPTION:

GATCAACTGT CCTTAACCAC AGCAGCATGA TACGCTGGNT TACCCAATCG CTTGTAAGGN 60
 AAGNCAGAGA TGACGTTATC CTGACTGCTG AGATGAGCAG TTTACCCTAG GAGGNCCNAT 120
 TNGGACTATN 130

SEQ ID NO:4477

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05316

SEQUENCE DESCRIPTION:

GATCAGCCAC ACAACTGTTT TGTACATACT TATTTTCTCA TGCACTTTTT TGTATGCAAA 60
 TAAAGCTATA AATTTACTCA TTTCAATAAA CTGGAGTGGC AGAAA 105

SEQ ID NO:4478

SEQUENCE LENGTH:159

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05318

SEQUENCE DESCRIPTION:

GATCTGGGAC AGANTTCACT CTCACCATCA GCAGTCTGCA ACCTGAAGAN TTNCAACTN 60

ANTACTGTCA ACAGAGTTAC AGTGCCCGT GGACGCTCGG CCCAGGGACG AAGGTTGGAC 120

GTCAAACGAA CTGTGGCTGC ACCNTCTNTT TTCATCTTN 159

SEQ ID NO:4479

SEQUENCE LENGTH:170

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05319

SEQUENCE DESCRIPTION:

GATCTGAAAA GAAGGTGAAT ATTTTGCAC TTTGATACTC TTAGGAACAA ATAATTATT 60

TGGCAATTG TTTNTTTTT ATGTTTTGGG TGTGTTTTT GTTTTTTGAC TTTTTTGTA 120

TTGTGAACAG GCACTGAAGC TGATGTTATT TTAAGATTAC AGAATGGAAA 170

SEQ ID NO:4480

SEQUENCE LENGTH:73

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05320

SEQUENCE DESCRIPTION:

GATCATGTAA AATTACAGTA CTCAACCCCT CTAGCAAAGT ATTTGGNTGA AAAATAAACT 60

AAATGCCTTT AAA 73

SEQ ID NO:4481

SEQUENCE LENGTH:130

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05321

SEQUENCE DESCRIPTION:

GATCCGCAGA GGGTGGTTGG GATACACCGG ATACCTCTGC TCTCATTGCT TGTTTCCAAA 60

TGCTCTATGG ACATTGTGT GCTAAATCCT ATTAAATAAA AAAGACGGGT TAAAACCCAG 120

ATGCTGTAAA 130

SEQ ID NO:4482

SEQUENCE LENGTH:56

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05322

SEQUENCE DESCRIPTION:

GATCAAAATTG AGAGACAATA AGTGATACATT GTTGAATAAA AAATTTTAAA GTTAAA 56

EP 0 679 716 A1

SEQ ID NO:4483

SEQUENCE LENGTH:90

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05323

SEQUENCE DESCRIPTION:

GATCTTGAGA GTATGTTCTT ACTCATTTCT GTAATTGCAG TAGTGTAGTC ATCTGCATAT 60
AGTTTAAATA AATGCATGTT AAAATTAAA 90

SEQ ID NO:4484

SEQUENCE LENGTH:58

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05325

SEQUENCE DESCRIPTION:

GATCAGCCA TTGACTCCA GCCTGGGGA CAAGAGTGAA TCTGTGTC TC ACCAGAAA 58

SEQ ID NO:4485

SEQUENCE LENGTH:115

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05326

SEQUENCE DESCRIPTION:

GATCTGGTGA CTGTNCTCTC CCTGTTTCC TTCTTTTGG GGTGTTGAG GAGCANNCT 60
TAGCTTGAGA CACACACAGA CACTGTGTAC TTCAGTNAAG GGCTTAATAN ACAGN 115

SEQ ID NO:4486

SEQUENCE LENGTH:201

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05327

SEQUENCE DESCRIPTION:

GATCATTCT ATGTGTGTGG GTAATCTGGT CAGTAAGATT GAGACTTAGT TAAGATTCCC 60
CTTGAAATT CCTTAATGTT TATTAGCTTC TAACTAGTGT TGTAAGTCCG ATGCCAGAAT 120
TTGGAGATT GAGTTCTTCT TTTCATGGCT TTTATTCACT GTGACTAATA AGCTTCCTAA 180
TAAATCCTTG CCAGACTTAA A 201

SEQ ID NO:4487

SEQUENCE LENGTH:274

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05328

SEQUENCE DESCRIPTION:

GATCTAGTTC GTGTATAACT GTTAACTCAT TTTACATTTT TTNCTTCGTT GAATGTTTAT 60

CAGATTATAA ATATAGAGGC ATTTCTNCAT CCTGTTTAAT GTTTATTTTG TAATCATTGG 120
AGTATGTGAA AAATTTTNGT TTGTTTGTCT TTGGTCTCTA AGTAAACATG TTCAGCAAAG 180
TATTTNTNTT TTNAAGAAAT AAATNGNGNT TTGTATGTCC TNCCTTTTAG GTTTGAGGCA 240
AAGAGGAGAT GGGAAANCAA AGGCAACANG GGNN 274

SEQ ID NO:4488

SEQUENCE LENGTH:332

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05329

SEQUENCE DESCRIPTION:

GATCTNTGCC ATGCAGAGCA TCTTCCAGAA GACCAGGACT CTGGGAGGCG AGGAGAGCTG 60
AGCTGGGCCA CCTGGTCTCA GCCACCTGTT CTTGGCTCCC CAACAGACTC TGCACTGCAC 120
CATGGGAGGC TCCTGGGATG TTTGGAAGAA GAAACGGGCT TCTCCTTGAG GGGGTAGTGG 180
AGGGATTTTT TCCCCAGCAG TGGCCTCTGA GAGTNNNTCA GTGCCTGGTG GGGCAGGGCA 240
GGCCTCTTGG AGCACCTCCT CCCTGGNTCA GGGCCTGGAT GCAGGTGCCA AGCTCTCCAT 300
GTGGTGCATG TTNGACCCAG CCACGTGGTG AN 332

SEQ ID NO:4489

SEQUENCE LENGTH:155

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05331

SEQUENCE DESCRIPTION:

GATCTTAAT ATGAGTAAT CACTATCAAG AGCTAATTAT TTGAAAAAT ATAAGATGTT 60
ATGGAGCAGA TAGCTCAAGC AGTAAAAAGA AATTNTGCAA CTNTAATTCT NTTCTTATT 120
TTAATACTAC TACTTAATAA ATAGTATTTG CTAAG 155

SEQ ID NO:4490

SEQUENCE LENGTH:115

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05332

SEQUENCE DESCRIPTION:

GATCAAAATCA GAGATTGACA GCCTGTGGAG GGTGCTGAAC TATACAGAAT TAGACACAAC 60
TATGTCATTA TTTTTGTAC CTAAGTNTCA GAATAAAAC ACTTGAAATA TGAAA 115

SEQ ID NO:4491

SEQUENCE LENGTH:197

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05333

SEQUENCE DESCRIPTION:

GATCCCTTCT GTTGGTGCA TGTTGTAAAC ATTTCTTTCA ATAACTAAA GAAAAATTAT 60
TAAAGGAACA CATACCTTTG GTTAAATAGT CTAAGTAAA AGATTGAGAA GTTACTTTCC 120

ATTGCTATCT ATTGATAATT TAGACATTGA GTTCAAATTG CCTTCATTTT ATGATAAATA 180
 ATGATTTAAC TGACAAA 197

5 SEQ ID NO:4492
 SEQUENCE LENGTH:79
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 10 CLONE:HUMGS05334
 SEQUENCE DESCRIPTION:
 GATCATTTTT ATTTGTAAA TATTACCTAA CTTTACATAA ACTATATCAT AATAAACTAT 60
 TTTTGCATCA CCCTTTAAA 79

15 SEQ ID NO:4493
 SEQUENCE LENGTH:377
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 20 CLONE:HUMGS05335
 SEQUENCE DESCRIPTION:
 GATCTCCAAG CTGAAACTTA CACGTAAAA CTTTTGCTG TAAGAATTG CACATGAATG 60
 TTAATGGAAA ACACAAAAC TAAGATGGCC CAAAACNAAA GCCACAAACA GTTCATCATT 120
 TGGTGCTTAG TCTTTGTAAG GGCTCTCTGT GGTTCGACTT ACTCCAGCTA CCGTTAGATG 180
 25 AGGGCAAATC ACCTTAGAAC ATGTTTCATT GATTCATAAC ANGGAATAATT GGGTCTATGA 240
 TTTTNGCCA ATCTTAGCCT AAAAGAAATT GCTTTAGCTT CTGGTCAGCA CTGATTAAAA 300
 TGTGAATAGT GAAGTGGCTA TCCTAAACTG GTTTATCTCC ACCCACAATA TCATAGANTT 360
 CTTAGGTAAT ACAATTN 377

30 SEQ ID NO:4494
 SEQUENCE LENGTH:170
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 35 CLONE:HUMGS05336
 SEQUENCE DESCRIPTION:
 GATCAAACAC ACACACCTAT ACACATACAT ATTAANATGC AGAGGATTTT AAATAATTGC 60
 AAATGTCTTG TGGCTGTTTT ATTTCTACAA AATTCTGTAA GATGTATACC AGAAAACATA 120
 40 ATAAAGATAA GCTCAGTTCT TCATTGGGNA AAANTATTTT TAAGNNNNNN 170

SEQ ID NO:4495
 SEQUENCE LENGTH:57
 45 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05337
 SEQUENCE DESCRIPTION:
 GATCTGTAAT GTGTCAAAGC ATTTTTCAC TTTCAAATAA AGATACCTAT AATGAAA 57

50 SEQ ID NO:4496

55

SEQUENCE LENGTH:373

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

5 CLONE:HUMGS05339

SEQUENCE DESCRIPTION:

GATCAGAATC TNCCAAC TTT AGAGGTGCAA TGAAGACAC TACGCTACTT GGTGAGCCT 60
 GGTGAAGAAT GTATTAATGA GACTNCTTTG CATAAACTG GGAAGAAAGA GAAGACAGTT 120
 10 GGAGATGGAA GATGGTTTTN TATATATNTN GGAAC TTAG TTCTCTGTA AGACGAAAGA 180
 GGAGAGCTAT GTTTNNTNTC ACATTGTCTG ATATATATNG TGTACCTGTC AGGTGAGTTG 240
 ATTTAGACAN CATAGCTGAC CTTTATGAC ANGGCAGTTT GANTAGGGNC TATTGTAATA 300
 CCTCACACA TTATAGGGGC ATCAGAGNAT GGCCATGGNA GGGACAGTCT TACAGGGGGC 360
 TTTANGNGN CCN 373

15

SEQ ID NO:4497

SEQUENCE LENGTH:368

SEQUENCE TYPE:nucleic acid

20 TOPOLOGY:linear

CLONE:HUMGS05340

SEQUENCE DESCRIPTION:

GATCTGAAGA AGTTGCTGTT CTGAAACAGA AGTTGGAGCG ATGTCATTCT GCTGAGCTTG 60
 CACTTAACGT AATCACGAAG TAGAGGAAAG GCTATGNAGT TGATGATTAC GTCTCAAAGA 120
 25 AATCCAAACA TGAGGAGGAA GAATGGACTG ATGACGACCT GGTAGAATCT CTCTAACCAT 180
 TTGAAGTTGA TTTCTCAATG CTAAC TAATC AAGAGAAGTA GGAAGCATAT CAAACGTTTA 240
 ACTTTATTTA ANANGTATAA TGTGAAAACA TAAAATATAT TANNCCTTT CTATTGTTTT 300
 CTTTCCCTTT CACAGTAACT TTATGTNAAA TAACCATCTT TCAAAAGGGC TANAANNAN 360
 30 ANANNTNN 368

30

SEQ ID NO:4498

SEQUENCE LENGTH:150

SEQUENCE TYPE:nucleic acid

35 TOPOLOGY:linear

CLONE:HUMGS05341

SEQUENCE DESCRIPTION:

GATCACATCA CCTCTCTGCC TCAGTTTCCC CATCTGTAAA ATGGGAGAAT AATACTTGCC 60
 40 TACCTACCTC ACAGGGGTGT TGTGAGGATT CATTGTGAAT TTTT TTTT TTTT TTTT TTTT 120
 GNGTTTTAAN GNNTAAAAAN CAGTNAATN 150

40

SEQ ID NO:4499

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

45 TOPOLOGY:linear

CLONE:HUMGS05342

SEQUENCE DESCRIPTION:

GATCTCCATC ATTTCTTACA GGTTTTCTC CCTCAAGCAA TTCGACATCT CAAGTGAAGA 60
 50 CATGGCCCT GAAGGGCAAT AAAGCTGCTA GTTTATTAAT ACAGTCAAA 109

50

55

SEQ ID NO:4500

SEQUENCE LENGTH:315

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05343

SEQUENCE DESCRIPTION:

GATCTACAGG NCAAGGGAG GGAGCAAGCC CTACTCGGAT GGGGCACGGA CTGTCCACCT 60
 TTNCTAATGT GTGTTGTCAG CCTGTGCTGT GGCATAGACA TGGATGNGNG GACCACTTG 120
 GAGACTGGGG TGGCCTCAAG AGCACACAGA GAAGGGAAGA TGGGGCCATC ACAGGATGCC 180
 AGCCCCTGCC TGGNTTGGGG GCACTCAGCC ACGACCAGCC CCTTCCTGGG TATTATTCT 240
 CTATTATTG GGNNGNGNTG AAGAGGCATC CTGCCTGGNT GGGNCAGCCC CTTCAGCCCC 300
 TTNTNCCCTN CCCGN 315

SEQ ID NO:4501

SEQUENCE LENGTH:157

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05344

SEQUENCE DESCRIPTION:

GATCAGACTG TTGCTTTCGC ATGNTGTATG TAGTGICTCA TGNCTGGAGT TTGCTTTGTT 60
 TTATAGTATC TGTACTCCTT GTATTTTCA AGAGCTATTT TGTAACAGA TGATGTATTT 120
 CTCCATTGAA AACACAATAA AAAAAANCA GCACAAA 157

SEQ ID NO:4502

SEQUENCE LENGTH:397

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05345

SEQUENCE DESCRIPTION:

GATCTAGTCT TTAATTTTCA TTGNTGTGA GGTCCATTCT GTTTACTAGA CGGATGTTAA 60
 TAAAACTAT GCGAGCCTGA NTGANTTCTC AGCCAAATTT AGTCTTGNT CTCATCTTGA 120
 TTGGNTTAAT TCCAAATTCT AAAATGATT ANTNCACAAT AGCTCTAGGG GATGANGAAT 180
 TTGCCTTACT TTGCCAGTT CCTAAGACTG TGAGTTGTCA AATCCCTAGA CTGTAAGCNC 240
 TTCAAGGAGC AAGAGGCGCA TTNCTCCGT GTCATGTAAT TNNCTAAGG TGCTTGGCAG 300
 CACTCTGTAC CCTGTGGAGT ACTCAGTACC TNTGGTTGA NGTTGCTGAC AAGACCTGAA 360
 AAAAAATCCCT TAAAAANNA ACCCTTTAAG GTGTGGN 397

SEQ ID NO:4503

SEQUENCE LENGTH:84

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05346

SEQUENCE DESCRIPTION:

GATCAGACTT GTTAAGTATG CCGCAAGTAA GAGCTAATTC ATTCATTCCA TGTNTGCCAC 60

TAAATAAAGA GATTGAGCAA GAAA

84

SEQ ID NO:4504

SEQUENCE LENGTH:316

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05347

SEQUENCE DESCRIPTION:

GATCTNAAAC CCAGACATCA AGGATAACAT CGTTGCTCAG CTGAAGCAGC TGTACCGCAT 60
 CCTTNAACC CAGGAGAGCT GGCAGCCCAC GCAGCCCACC CCCAGCATGC AACTGCCCCC 120
 TGCCCTGCCT CCCAGTAAT TGTNAATGCN ATCTTCTTCC TTCTNTTTTT TATAATATTG 180
 TACATATGGA TTTTTNAGN GNTTAGATTT AACCAGCTTT TAAATCTCTC TTTNNTCTAA 240
 CAGTGTTAGA AGTTTGTNAT TCTNCAAATA TGCCTAGATT TAAAGCTGNT TTGAATTTAT 300
 GGNAAAAAAA AANAAN 316

SEQ ID NO:4505

SEQUENCE LENGTH:218

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05349

SEQUENCE DESCRIPTION:

GATCAAAGTG TTAGGGGAAA AAAATTCCAA AAGTAGTTAC AAGCTATATC AATGTCAAAG 60
 TAAATNCACT TCATCAAAGC TAAGAAGTCA CAGGAATTGT NCTCAGGTTT TAAAAAAAT 120
 TTTNCCTGAA TTCAGGAAGT GTCTTCTGAA TAGCAGCTAG CCANNTAAAG CGGTGTGTGT 180
 GTACTGCAGC TGTAGGTGAA CTAAAAATA ATAATAAA 218

SEQ ID NO:4506

SEQUENCE LENGTH:297

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05350

SEQUENCE DESCRIPTION:

GATCAGCCAG TTACCTTCTC CATTGTNTTA GTTCTGTCAC CCATTTCGTC AAGTGACCTC 60
 TCATCTTCTA TAAACTAATA CAGGAATTCT TTCCAAAGCA ATGTCTAAAA ACTCTTTTTT 120
 TTAAAGTAAC AGTTTGGTAT GTTTATTGTA GATAAATNAT TTTNAGGCC TTCATTTTAG 180
 CTAAGTTTAG AATTNATATT AGGCANCTAT GATTGAGTG GTTATNCATT GAGTAANTTT 240
 CCACTATAAA GAATTTNATT GANCANTTGT TAAAGNATNN TGGTAATGCA TGGNCAN 297

SEQ ID NO:4507

SEQUENCE LENGTH:322

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05351

SEQUENCE DESCRIPTION:

GATCAGAGCA CTGAGAACT CCAGAGGCTT CTGGTTCACC GCCCTGATTC CACAGATGTG 60

GGTCAGAGGC AGAGATGGAA GTTGGAAATGG ACAAGCCTGC CCTCTCCTCA GCTCTCCATG 120
 GCTCTGTCTT CAGGCTGTTT CTGCAATTTG ACATGAGGCC TGGCCCCAGG GAAACCAGTG 180
 5 GGGCCTCATC TCCTCCCTGT GCTGCTCTGA GGTGGAGCCT TCTNAGGGTC AGTCCAGCTC 240
 TGGAGNCCCT CTCCAGCTCG GTCACCAAAG CTGTCTGGTC CCAGGGCGGT GTGGAGTGAC 300
 AGGCACGGCA GCCCAATNCN GN 322

SEQ ID NO:4508
 10 SEQUENCE LENGTH:137
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05352

15 SEQUENCE DESCRIPTION:
 GATCGCGCCA TTGCACTCCA NCTTGGGTGA CAGAGTGAGN CTCTGTCTCA AAAATAATA 60
 ATAATNAATT AATTAATTAA TTAATAATA AACAGTGGGT TAGTTATCTC AAAAGTGGGC 120
 TTGTTATAAA ANCNNGN 137

20 SEQ ID NO:4509
 SEQUENCE LENGTH:285
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS05353

SEQUENCE DESCRIPTION:
 GATCATAAGA CTGTCATGTA AGAGGTGCTC TCCTGGCACC CAGAGAAAAG GAGCATCCTT 60
 ACCTCCAAAA GCACAGGGAC ACAAGAGGA ATCTAAACAA ACAGGCCTCT NAGTTTCCCC 120
 CAGTTTATTA CATTAGCTT GTTCACACTT TGCCCTATGA CATTNCTACA TCACTGGNTG 180
 30 CTCTTCATCA AACCTACTAT AANNNCATT CAAGTTCAAC TGTTTCTTTG GGCCTTNNTT 240
 NNCTTATGGA GGCCCTCGTG TCGTGTAATA CTTNTATTNG GTNAN 285

35 SEQ ID NO:4510
 SEQUENCE LENGTH:327
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05354

40 SEQUENCE DESCRIPTION:
 GATCAGCAGA GTGGAGGCTG AGGATGTTGG GATTTATTAC TGCATGCAAG CTCTACAAGT 60
 CCCGGTCACC TTCGGCCAAG GGACACGACT GGAGATTAAA CGAACTGTGG CTGCACCATC 120
 TGTNTTCATC TTGCCGCCAT CTGATGAGCA GTTGAAATCT GGAAGTGCCT CTNTTGTGTG 180
 CCTGCTGAAT AACTTCTATC CCAGNGAGGC CAAAGTACAG TGGAAGGTGG ATAACGCCCT 240
 45 CCAATCGGGT AACTCCAGG AGAGTGTAC AGAGCAGGAC AGCAAGGACA GCACCTACAG 300
 CCTCAGCAGC ACCCTGACGC TGAGCANN 327

50 SEQ ID NO:4511
 SEQUENCE LENGTH:194
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

CLONE:HUMGS05355

SEQUENCE DESCRIPTION:

GATCCTCCAC TCCAGAGCAC CTGAGAAGGC CGGGACCAGA GGCCCTGTGT GATGTGTACT 60
 CCGCAGCTGT TTGGGGTGGG ACATTTCGT ACTTCTCGAT TTGCTTATGG CTCAGCCATT 120
 ACCTGTGTCA GTCCATGATT CTGTTGTAAC AGTTTAAAGA GTAAATAAAT AAAGCTGCCT 180
 GATGTCCCAT CAAA 194

SEQ ID NO:4512

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05356

SEQUENCE DESCRIPTION:

GATCACTTTT CCCTGTCTAA ACTCCAGGNT ACAGTATCCA ATANATCCAA ACAGAACTCT 60
 GGTGTCAAAG TGTAAATAAT NGTGTAATAAT AGCCTTCCCA AGNTTN 106

SEQ ID NO:4513

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05357

SEQUENCE DESCRIPTION:

GATCTCACCA CTGTACTCCA GCCTGGNTGA CAGAGCGAGA CCCAGACTCA AAAAATAAAA 60
 ATAAAAACCC TGAATATCTT CCTTCTAAA 89

SEQ ID NO:4514

SEQUENCE LENGTH:366

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05359

SEQUENCE DESCRIPTION:

GATCTCTATA CCTCAGCTTC TTCATCTGCA AAGTGAGATA ATTGTACTAT TCTACTTTCC 60
 TCATAGTGCN NTTATAACAG ATTATGATAA TATTACAAAG TACTTAATAC TTGGCATATA 120
 GTATATATAT NANTATTAG TATTTTGCAA TTTGGGGATA TTGAAAATTA GAAATTGCNT 180
 GTTAGTTCAT GCTGCACTAC CATATTGTCC TTTTGGGGCT CTTCAATGGG TGAAATTCCA 240
 TTTNACAGTT TATCATGTGC ATCTGTATCA CAGGNGTATT TTGGCAAAAT GATTCTGTNC 300
 CAAAAAGGAG TACTATANNN NGNGGGTGCC AAATATATTG AGTCTNTTAT GGGGAAAANA 360
 AATTTN 366

SEQ ID NO:4515

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05360

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

GATCTCTGGT AAAAAGCAAC ATCTGAGAAA ATTNCTTGTT TTTAGGAACC TGTGTACATT 60
 CATACTTAAT TCTNCCAATN ATGCTTTTCA GTTTTTTGGA TTAACACTCA AAAGTAACAA 120
 GTCCTCAAAA TTAGGTTTGT CCTGTTGTTT TAAGTGGACC TTTGGCAAGA GATTTCTAGT 180
 5 GAAGCTTGAT TCTNAGTACT TTCCTCATGT ATTAAAAAGA GGCTGGAGGA GGGAAACCTGG 240
 GACGTGGAGA GTGAGGAGTG ATAGCCTGAG GTTCTTGGTT TGCCAACCTG GGGAAACCTT 300
 GTCTCTACTT AAA 313

10 SEQ ID NO:4516
 SEQUENCE LENGTH:73
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05361
 15 SEQUENCE DESCRIPTION:
 GATCACTAAA CTATCTCCCC TCTTGCTGAA GTTCTTTGTA GTAATAGCTC ATAAAAATTT 60
 GTTTATTAAT AAA 73

20 SEQ ID NO:4517
 SEQUENCE LENGTH:247
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05362
 25 SEQUENCE DESCRIPTION:
 GATCTTTTAA AAAGAGATTA AACCGAAGTG ANTTAAAAGA CCTTGAAATC CATGACGCAG 60
 GGAGAATTGC GTCATTTAAA GCCTAGTTAA CGCATTNCT AAACGCAGAC GAAAATGGAA 120
 AGATTAAATNN GGAGTGGTAG GNTGAAACAN TTTGGAGAAG NTAGAAGTTT GANGTGGAAA 180
 30 ACTGGANGAC AGAAGTACGG GAAGGCGAAG AAAAGANTAG AGAAGATAGG GAAATTNGAA 240
 GNTAAAN 247

35 SEQ ID NO:4518
 SEQUENCE LENGTH:95
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05363
 SEQUENCE DESCRIPTION:
 40 GATCGCAGAA CATACTGTAT TTTNACTATA TCTTTTTTTT TAAATCTGAC AAACTTTTTT 60
 NCTTTNATTT NAATTGACAT AATTGTACAT ATAAA 95

45 SEQ ID NO:4519
 SEQUENCE LENGTH:134
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05364
 SEQUENCE DESCRIPTION:
 50 GATCTGCTTT GGAAATTAAT TGCCTCTAAT ACATACCTAA GTAAACATAA CATTAAATACC 60
 TAAGTAAACA TAACATTACT TGGAGGGTTG CANTNTCTAA GTGAAACTGT ATTTGANACT 120

NTTNAGTNTA CTTN

134

SEQ ID NO:4520

SEQUENCE LENGTH:269

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05365

SEQUENCE DESCRIPTION:

GATCTGGCAC TGAGCTTTTT GTCAGTGAAC CTTCCCGATG CCAGCTGGGC TCTTGGACTC 60
 CCCTCTTCCT CAAGGGTAGA TGAGAGGAAC GATNNNTAGA GGTGGCTGT GGGTCCTGGG 120
 TACCACCTTC TGAGCCTCAG TTTCCTCATC TGTAAGTGG GGAGAAAAGT CTGTTTGCCT 180
 CAGGAGTGTG AGGACTACAC TAGTGAAAGC NCCTGGCGGG CAGCCGGCGA TGCCCAATAA 240
 ATGTGTGNTT TGCTGTTTGT TAAGTGAAA 269

SEQ ID NO:4521

SEQUENCE LENGTH:189

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05366

SEQUENCE DESCRIPTION:

GATCAGTTTG TAATTTTTTT NCTCCTTGAA GGCACAAAAT AATTGGTTTN AGGTATGTAA 60
 AACACTAGAG GTCAACCTTA CATAGTATAT AGAACTNATG GGTTTACCCA GCTACCCAGT 120
 AGCATAACTT TNCACAGCTC GGGGATGAAT TAACATGGCT GAAATAAAAC TAAAAGTATG 180
 GTTTTNAAA 189

SEQ ID NO:4522

SEQUENCE LENGTH:79

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05367

SEQUENCE DESCRIPTION:

GATCAGTA CACCATATGC ACTCTGGTAC CTTAATTTTT TTTTATAAAT AATAAAAGTG 60
 AATATTGAAG CTTCTTAAA 79

SEQ ID NO:4523

SEQUENCE LENGTH:255

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05368

SEQUENCE DESCRIPTION:

GATCTGTTGA ATTTGGGAAG CCTCCAGTTT TAATAAAATT TTTTATTAT GGTGGAAACN 60
 TGTCTGTAAA NCTTAGGACT ATAGAAATGC AAAGAATAAA GANCTGAGGG AGTTACACAC 120
 ATTTGTAGTC AGAAATTAAG TTCAAAANAT AATTTAGGTC ATTTGCATTT TTTAGTATGC 180
 AAAATAAATG GAAAANTTAA NGTGCAATAN ANNTATAATT NGGGAAATGA ATGCAGTAAA 240
 NTTGANAACA TTGAN 255

SEQ ID NO:4524

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05370

SEQUENCE DESCRIPTION:

GATCTGTCAG GGCCACTTAG TGATAATAAA TTCTTCCCAA CTGCAGACAA A 51

SEQ ID NO:4525

SEQUENCE LENGTH:353

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05371

SEQUENCE DESCRIPTION:

GATCCGCATC GACTTGGCCG TGGGCGACGT GGTCAAGACC TGGCGTTTCA GCAACATGCG 60
CCAGTGGAAT GTCAACTGGG ACATCCGGCA GGTGGCCATC GAGTTTGATG AACACATCAA 120
TGTGGCCTTC AGCTGCGTGT NTGCCAGCTG CCGAATTGTA CACGAGTATA TCGGGGGCTA 180
CATTTTCCTG TCGACGCGGG AGNGGTCCCG TGGGGAGGAG CTGGATGAAG ACCTCTTCN 240
GCAGTCAACC GGGGGNCATG AGGNCITCTG AGGGCTGTTT GATTGCCCCT GCCNTGCTNA 300
ACAACTGTN ACAGGCACTT CCAAGGCCAG AACCACAGGG GCTNACTNTC GAN 353

SEQ ID NO:4526

SEQUENCE LENGTH:174

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05372

SEQUENCE DESCRIPTION:

GATCTGGAAT AATTATGGTA AAATAATAGT ATTTGCTAAG ACTAGATGAT TGGTGTACTG 60
GATTTTCATCC GCTATTTTCT AAGTTTGTTA TGAACGCTTA AAATATATAT GTATGTAGTA 120
AAATTAATGT AAATTGTAC AAATAAAAT AAATGGCATG TGATATATGG CAAA 174

SEQ ID NO:4527

SEQUENCE LENGTH:201

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05373

SEQUENCE DESCRIPTION:

GATCATGTGT TTGGGGGCTT TTAGGGGACC CAGCTGCACT GGGGCACTGC CCGTGGCCTG 60
GGTAGGACAT TTCCAGCAA GGGCTGGAGG AGTTGCCGTG CCTTCAGCCT GAATCGAATG 120
TCAGAACCAG CCAGCGGTGC TTCACCTCT TGGGGATAAC TTGCTTAGTT TTTTAATAAA 180
TGTTCTGGT TGGTTTCAA A 201

SEQ ID NO:4528

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05374

SEQUENCE DESCRIPTION:

GATCTATGAA GCCACCAAC AAGGCCGAGG GGCTCTGGAG GCATTGCTAT GTGGGGGACC 60
CCAGGGGGCC TGCTCAGAGA AGGTGTCAGC CACAAGAGAA GAGCTCTAGT CCTGGACTCT 120
ACCTCCTCT GAAAGAAGCT GGGGCTTGCT CTGACGGTCT CCACTCCCGT CTGCAGGCAG 180
CCAGGAGGGC AGGAAGCCCT TGCTCTGTGC TGCCATCCNG NNNGGNTCCT CCAGCCTCAG 240
GGCACTCGGG CCTGGGTGGG AGTCAACGNC TTCCCTCTG GACTCAAATA AAACCCAGTG 300
ACCTCAAA 308

SEQ ID NO:4529

SEQUENCE LENGTH:194

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05375

SEQUENCE DESCRIPTION:

GATCTTCTGA GCTTGTTCC CTGCTGGGTG GGACAGAGGN CAAAGGAGAA GGGAGGGTCT 60
AGAAGAGGCA GCCCTNCNTT GTCCTCTGGG GTAAATNAGC TTGACCTAGA GTAAATGGAG 120
AGACCAAAAG CCTCTNATTN TNAATTTCCA TAAATGTTA GAAGTATATA TATACATATA 180
TATATNCCTN TAAN 194

SEQ ID NO:4530

SEQUENCE LENGTH:314

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05376

SEQUENCE DESCRIPTION:

GATCTTGATT GATAACTGCC ATGATATTTT GCTTTGATGT GTTCTACAT GTGGTTGCAC 60
ACGGTTCACT AAAAATAATG CTGCTATCGA GTATGCAAAT ATTGAAGTAT GATGGTTTGA 120
CTGTATGGNA GTGTTGTAGC AGCCTCTTGT TTTTTCCTCC ATTGCCTCTT TTTTAAAAA 180
ACTTATAAAG TCACTNTTNA TTTTNCCTCA GTCTTCAATG ACGAGAGCAA TATTAAGANG 240
ACATTGCTAT CTAATNNTNA ATCTTNTTAA ATGAAAAATT CCTATGTTCA GTAGCGTGGT 300
TGATGCTATT GTGN 314

SEQ ID NO:4531

SEQUENCE LENGTH:182

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05377

SEQUENCE DESCRIPTION:

GATCGAGTCA GCATAAATTT CTAAGTCAGC CTCTAGTCGT GGTTCATCTC TTTCACCTGC 60
ATTTTATTG GTGTTGTNT GAAGAAAGGA AAGAGGAAAG CAAATACGAA TTGTACTATT 120
TGTACCAAAT CTTTGGGATT CATTGGCAAA TAATTCAGT GTGGTGTATT ATTAATAGA 180
AA 182

SEQ ID NO:4532

SEQUENCE LENGTH:314

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05378

SEQUENCE DESCRIPTION:

GATCATGAAA CTGGTTTCTG TTTTATGCAG TTGTCATTG TAAAGNCTAA TAAAATATNC 60
TCTATAATTN CTTCTAGATT ACAAAAATAT GACAATCTTG TAAGTAGCAG ACTATGGAGA 120
AAAATGAGTT ACCTGGNGGG TCAGGTAACT TGCCAAACTN AAANGTNTGT TAGTTGAGGC 180
AAAGTCCTAA GCAAGGTTGT GCTATCANGG CTCAGCATACT CTTGCGGGC CTTTGANTTA 240
CCANCACTGG AANTGCCTGC CANCTAATCT GGGGTAGATT CTTTAAGGCA TTCCACTTAG 300
CTTGCCAGTT GNGN 314

SEQ ID NO:4533

SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05379

SEQUENCE DESCRIPTION:

GATCAACTAA TAGCTCTGCT AGTAATTGAT TTATTTTNC TCAATAAAGT TGCATAAACC 60
AATGACTTAG CTGCTGGAT TAATCAGTAT GGGAAACAAT CTTTGTAAG TGCAGGCTG 120
TTTTNGTAT ATACTGTTGG GATTTGCTTC ATTGTTTGAC ATCAAATGAT GATGTAAAGT 180
TCGAAAGAGT GAATATTTT CCATGTTTCA TTAAGTGCA CAGTCTGTTA CAGGTTGACA 240
CATTGCTTGN CCTGATTTAT GCAGAATTAA TANGCTATTT GGATAGTGTA GCTTTAATGT 300
GCTGCACATG N 311

SEQ ID NO:4534

SEQUENCE LENGTH:330

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05381

SEQUENCE DESCRIPTION:

GATCGGAGGA CGACCCGAGT CCAAGAGTG GGGTTTTGCT TTTTAAAGG AGAGAGGAGG 60
GGTGATGGCA GGGGAGTGGA GGGTGCCGG GCAGGTCTG CCGGCGCAGG GAGCCCTCTG 120
CCCTTCACAC TCTCTCAA AAGAGCCTCC ATCTGTAAGG AAGCAGGTCT CCGCGAGGGG 180
TTTCTTTCCA TGTNTTTTCC TCCTGTNGTT TTAGAACTTT TTNGAAAAA ACNGNCCTCG 240
TTTLAGATTT ATAGCATTGA CTTTACACA CATTACACA AGANAAAAAT CCTTNCAAAA 300
TTCTTAAANT NNNCTGGTNC CNNCTTTNNN 330

SEQ ID NO:4535

SEQUENCE LENGTH:204

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05382

SEQUENCE DESCRIPTION:

GATCTCAGCT CCCGTTCCCC AAGCACACTC CTAGCTGCTC CAGTCTCAGC CTGGGCAGCT 60
 TCCCCCTGCC TTTTGACGT TTGCATCCCC AGCATTTCTT GAGTTATAAG GCCACAGGAG 120
 TGGATAGCTG TTTTCACCTA AAGGAAAAGC CCACCCGAAT CTTGTAGAAA TATTCAAAC 180
 ANTAAATCA TGAATATTTT TAAA 204

SEQ ID NO:4536

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05383

SEQUENCE DESCRIPTION:

GATCACTTGG AGACTCTTTT TTTGCTGGTT TCTAGATAAC TCAGGTAAAT CAGACCTTTA 60
 CAGAGTACAG GGCTAGGTGA NAGANTTACT GANAAATCAC CTTGAAAATC CGANGGGCTG 120
 ATATAACCTT NNTGTN 136

SEQ ID NO:4537

SEQUENCE LENGTH:87

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05384

SEQUENCE DESCRIPTION:

GATCTATGCT GTGTTTGCTT ATTCTTTAGT TGAACACACT ATGAAGAATT CCAGGTGTAC 60
 TAGTGAATGT AATTTATAGT TGCCAAA 87

SEQ ID NO:4538

SEQUENCE LENGTH:305

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05387

SEQUENCE DESCRIPTION:

GATCGACAAC GAGGCCCTCT TCAGCTGCGA GGTCAAGCAC CCAGCTCTGT CGATGCCCAT 60
 GCAGGCAGAG GTCACGNTGG TTGCCCCCAA AGGACCCAAA ATTGTNATGA CGNCCAGCAG 120
 AGCCCGGGTA GGGGACACAG TGAGGATTCT GGTCCATGGG TTTCAGAACG AAGTCTTCCC 180
 GGAGCCCATG TTCACGTGGA CGCGNTTNT GAGCCCGGNN NNNGGACGGN AGCGCTGAGT 240
 TCGACGGGAA GGANCTTGGT GCTGGAGCGG TTTCCCGNCG AGNTCAATTG GCTCCATGTA 300
 TTNGN 305

SEQ ID NO:4539

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05388

SEQUENCE DESCRIPTION:

GATCATAAAA TGAATCTTT ATTGTATCTA CACACTCCAC ATTCTTTACT GTGTCCTACT 60

ACTGTATCTT GGTCCANTG CTGTATTAAA CACCATCTTA AGCAAA 106

SEQ ID NO:4540

SEQUENCE LENGTH:167

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05389

SEQUENCE DESCRIPTION:

GATCCTCCTT TGCATGCAAC TGTAGCTGCA TTTAATGAAT AGTTTGAACC CTGTNAATN 60
 CATTTTTTNA AAAAGAAAGA AAAAAAAAAAC TTCGTGTATG NAACTCAAAG CATGNAACCT 120
 TAAGATGTTG CATTCTAAAC TNACANTAAA GACCTTTCCC AANTAAA 167

SEQ ID NO:4541

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05390

SEQUENCE DESCRIPTION:

GATCCATACG TGGCCGCACC CACACAGCAC GTGCTGTGAC NGATGGCTGA ACGGAAAGTN 60
 TACACTGTTT CTGAATATTG AAATAAAACA ATAACTTTT AATGGTANAA A 111

SEQ ID NO:4542

SEQUENCE LENGTH:216

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05391

SEQUENCE DESCRIPTION:

GATCAGTTCT GCAAGATGCC CATCAACAAC AAGATGGCCC AGTGGGGCAA CAAGCCTATA 60
 TGCTGAGCAG GAGGCAGACT TGCAGAGCTT GTTTTGTTTC ATCCTGTCCG TAAGGGGTCA 120
 GCGCTCTTGC TTTGCTCTTT TCAATGAATA GCACTTATGT TACTGGTGTC CAGCTGAGTT 180
 TCTCTTGGGT ATAAAGGCTA AAAGGGAAAA AGGAAA 216

SEQ ID NO:4543

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05392

SEQUENCE DESCRIPTION:

GATCGAAAAT AGTTGGAAAA AAGAAGAAGA GTTGCATCTC TACTGAACAT GTACAGACTT 60
 TCTTCTTCTT ATTATTCCTT AAACAATACA GTGTAAACT AAA 103

SEQ ID NO:4544

SEQUENCE LENGTH:194

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05393

SEQUENCE DESCRIPTION:

GATCAGAACA NTNCAAAAAA TTCACACCCC CAAAAAGNC AAGCTATTAT ATGGCAATTT 60
 CGTGATAAAA TATTCATCCT ATTTGTCCTG CATTTCTAAT TTTCCCGTAA CTAGACACAT 120
 CAGTTTTATA ATTAGGGNAA AAATACCTTN TAAAAGTAAA GCGAGCANAG GTTTCNNTTG 180
 CANTGTTCAT TCCN 194

SEQ ID NO:4545

SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05394

SEQUENCE DESCRIPTION:

GATCTGGTAG GTTGCAGCAG AGAAAATAAA TGTGACTTGN GAGNCCACTC AGAGAGGGTC 60
 CAAGGGTGAT GGAGAAGGAA GCATGGCCTG GNAGCTTGGA AGGNANGN 108

SEQ ID NO:4546

SEQUENCE LENGTH:266

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05395

SEQUENCE DESCRIPTION:

GATCTGCTCT TGCAATGGCC TCACCATCTG GNAGGAGCGA GGCCGGCCCA TCGTTGGCAA 60
 GGGCCGAAAG GAGTCAGCGC ANCCCTGCC CACCTTTNAG CAGGACCTCA CCTTGGCTCT 120
 GTTGCTGTCC TCCAGGGCGA GCACTTTCCA CTTCCAGAGG GGGCCAGAGG GACTTTGCCT 180
 GCCCAGTCTT TGGAGAGCTC AGTACAGGGC AGGAGCTGCT GTGGTGTTC CTTGGCAAAT 240
 NAAAGTTTAA TTTTCGTTTG GGNAAA 266

SEQ ID NO:4547

SEQUENCE LENGTH:72

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05396

SEQUENCE DESCRIPTION:

GATCTCCGTG TGTGCATGTN ACTGTGCTGG GTTGAATGT GAACAATAAA GAGGAATGTC 60
 CAAGTGTTC AA 72

SEQ ID NO:4548

SEQUENCE LENGTH:104

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05398

SEQUENCE DESCRIPTION:

GATCATGGGG GTGGATTCT TATGAATGGT TTAGTACCAT CCACTTTGTA TTGTCCCCGT 60
 GGTAATGAGT GAGTTCTTAA GAAATCTGGT CATTGAAAAA TAAA 104

SEQ ID NO:4549

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05399

SEQUENCE DESCRIPTION:

GATCTTCACA TCTTGGACCT TNGTCAGTTT TGCTATTCAT TATTAAACAC TAAACCTTG 60
GCGGTTNTTG CAAA 74

SEQ ID NO:4550

SEQUENCE LENGTH:292

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05400

SEQUENCE DESCRIPTION:

GATCTGAAAT CACATCCAGC TCCTGATGTT TTCTTCTCCC TCTGACTGCA GAGGAAGTGT 60
TCCTACCTGC AGGAAGGCAC CTGTACACACA GGGCGTTCAC TCAGACCATC TGTGCTCTGC 120
CCTGAGTTCA GTTGAGAAAA TCCTATTATC AAATTTGGNT TTCCTGGCCC CAGAACTTCC 180
CAAAGACCTG TAAATGGAG GGATTIACCA CCTCACATAT GTCCAGTTAA ACAGTTTGTG 240
GACTTGTAAC CGTCGCAGCC CANTGGTACA ACAGTAGTTT AATCACGGGA AA 292

SEQ ID NO:4551

SEQUENCE LENGTH:265

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05401

SEQUENCE DESCRIPTION:

GATCGGATGG GCAAGTCCCT GCCAGGGTCT CCAGATGGCA ATGGAAGCTC CTCCTTGCCC 60
CACTGGGAGT AGCGGCTAAA GCTGGGGGAT AGAGGGGCTG CAGGGCCACT GGAAGGAACA 120
TGGAGCTGTC ATCACTCAAC AAAAAACCGA GGGCCTCAAT CCACCTTCAG GGCCCGGCCC 180
ATGGGCCCCCT CACCGCTGGT TGGAAAGAGT GTTGGGTNGT TGGCTGGGGG TGCAATAAA 240
GCTGTGCTTG GGGGTCGCTN GGAAG 265

SEQ ID NO:4552

SEQUENCE LENGTH:173

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05402

SEQUENCE DESCRIPTION:

GATCTATGCT CTTTCAAATG GAGACTGGGA TATTGTTGTT TTAAGACCAC TGTTTTCTCG 60
TTTCCTCCCA AATNTTAGTC ACATATATNA TTACCCTTAA GTTGGTCACT ATCTATCTAT 120
CTGTCAATAA TTCAGGATTA AAGTTTGAAG TGTAATTACA TTTGANTTTT AAA 173

SEQ ID NO:4553

EP 0 679 716 A1

SEQUENCE LENGTH:270

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05404

SEQUENCE DESCRIPTION:

GATCGACCAG CAGGTGGTCT ATATCCATCC TTCCAGTGCC CTCTTCAACA GACAGCCAGA 60
ATGGGTNGTG TACCATGAGC TNGTGCTCAC CACCAAGGAA TACATGCGTG AAGTTACCAC 120
CATCGACCCT CGGTGGCTTG TGGAGTTTGC CCCAGCCTTN TTNAAGGTCT CAGACCCANC 180
TAAGCTAAGN AANCAGAAGA AGCANCAGCG TCTTGGNACC GTTGTACAAC CGNTATGAGG 240
ANCCCAATGN CTGGGAGAAT ATCTCGGNGN 270

SEQ ID NO:4554

SEQUENCE LENGTH:333

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05406

SEQUENCE DESCRIPTION:

GATCGGGTTG AGCCCAGGAG GTTGTGGCTG CAGTNAGCTG TGATGTGCCC TTATGCTATA 60
GCCTGGGCAA GAGCGTGAGA CCCTGTCTCA AAGAAGAAAA AAAGAGAAAA ATAACCTTTT 120
TGAACAAACA GNCAAATTAG CTAGTAGTAT GGAGATGTAT ACCCTCTATT ACACACATAA 180
AACCCTAACA AAATTCATTG NGGTGTATTA TAGTTAGTTT TGTGAATAGA GAAATAAAGC 240
ACTGATGNTT AANNTTGGTT ACAGTGACTT TTAGAAGGNN TTNNTTGNTG GTTCACATTN 300
GTCAGAANTT TTTTCCNNC NNGGCTGGTT CAN 333

SEQ ID NO:4555

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05407

SEQUENCE DESCRIPTION:

GATCTCCCC TTCCCTTGNG GGGCACAGCT GGCCTGGGCC TCCAATCCTG CGGANTTTCC 60
TGGGTGTGGC TTTGACCTCA GAAGTGGCTC TGGTTTGGCC TCAGGAGTGT GGCCTGGCCC 120
AGCCTGCTGC AGCCTCCTGT GGNNGGCCCT TNATGCCACT AATCCCCNGA CCCCCGGAT 180
NTTNCAAACT GNACAGACAC ACGNATTGTT AAGGCCGCTT ANGGCCTCCA GCGTGCACTC 240
TTNTTTANGN 250

SEQ ID NO:4556

SEQUENCE LENGTH:211

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05408

SEQUENCE DESCRIPTION:

GATCAATGCA NCGACGTNGG GCTCATGGCC TACCTCGGCA CCATCACCAA AACGNGCAAC 60
ACCATGAACC ATTTTGTGAA CAANTTCAAT GTCCTCTACG ACCGACAAGG CATCGGCAGG 120
AGAATGCCGG NGCTCTNTTT CTGATGAGGG TACTTGAAGN GGCTGATGGA CAGGGGTCAN 180

NGCAACTATC CCAAAGTGA GNGCACTACA N

211

SEQ ID NO:4557

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05409

SEQUENCE DESCRIPTION:

GATCTTTTT CCATTGGTTA AACATTTAAC TCCATGNCAG ACCTTGTTTT AACCCCTCTC 60
 ACATCATGTT CTTTCCTTTT TTGCGAGTTA TTTTGCAATTA ACCAACTTTG TCAGTGACAG 120
 ATGCGTATCT GAGGGTGTCA CACACGACCN TCAGCAGGGA AGACTTCTGG GCCATGGAGG 180
 GCCGTCTAAT ACATGGACTT ATAACTGAC TGCNTGGGCA ATGAAAAGGC CAAATTATTC 240
 TGAATTTTT TNGAATCACT GTAAAAAAC TGATTNTTN NTGTATAGAG ANCACTTAAA 300
 CCGTGGAN 308

SEQ ID NO:4558

SEQUENCE LENGTH:175

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05410

SEQUENCE DESCRIPTION:

GATCCAGCTG GCTCATCCCA GCCCAGGTGG GCCAATTATT CAATTTNAA GAATTTTGTT 60
 GCAAGCCAGT TGTCAAACAC AGCCATTATA ATTATGTAAA TTTGCAANTT ATGTAAAAA 120
 CAAGGACAAT AAATATTCAA AATGCATCCC TAATTACTAC ATTTGACCAC GNAAA 175

SEQ ID NO:4559

SEQUENCE LENGTH:178

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05411

SEQUENCE DESCRIPTION:

GATCTTNACA ACTGTTTAAT CAGTTTTATT TTTGTACAGT ATTAGTGACC TAAGTNATTT 60
 TGCTGTCCCG TTTTGTAAA TCAANTGAAA NTATAAAGA GGCTTGTGAC AGTAGGTATT 120
 TTGTACATAT GTATATATGT TGTCCAAATA AAATTAATAA ANTGGTNAAA GGCTGAAA 178

SEQ ID NO:4560

SEQUENCE LENGTH:77

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05412

SEQUENCE DESCRIPTION:

GATCTTCAGC ATCTTTTACT TTCACCAGCG TTTCTGGGTG AGCAAAAACA GGNAGGCAAA 60
 ATGCCGCAAA AAAGAAA 77

SEQ ID NO:4561

SEQUENCE LENGTH:203

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05413

SEQUENCE DESCRIPTION:

GATCCCAGGA ATATTGTAAA TTTCTAACT TTA CTCTGCA TTTTGTATAT CTGGCCTCTA 60
 TTGCCCTTGA AGGTGAAGAT GAACTGTCT TTAGAAGATA TCTCTTTGAT TCTGTGATAG 120
 AAGTCCCTCA CATCTTGTAT TAATTTTATG TATATATCAA CGGTGGTTGG TCTTTAAAAA 180
 AATAAATCAA AAGAATANGT AAA 203

SEQ ID NO:4562

SEQUENCE LENGTH:352

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05414

SEQUENCE DESCRIPTION:

GATCAACCCA CATTAGAGTG TCTAAGGACT CCTGAGAATT CCTGTTACAG TAAACAAAAAC 60
 TAACGTAATC TACCATTTC TACACTATT GAGCATGGAA ATCATAGTCC CCACTCTGTG 120
 AAACTTAAC GCTTTTGGGA AGACATTTC GTAGCATGTC AGTTTGGAGA AATGATGAGC 180
 TACGCCCTGA TGAAAGAACC GTGTTGGTGC TGCTAAGTT AGCCATTATG GTTGNGCCN 240
 TTNTCTNTCT TAAGGCCCTTA TTCTTCAAC TAAAAAGNTG GGGGATTNAG GNGCCAAGGN 300
 AGNTTGGGGG GGGGNTNNTG NAAATTAANT TTTNTGAGG GGTNGGCNTA GN 352

SEQ ID NO:4563

SEQUENCE LENGTH:210

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05415

SEQUENCE DESCRIPTION:

GATCCGCAAC CTGGACCCCA GTGAGAGGCG GTGGGCTGAC TGGGAAGNAG AGGCCCCCAA 60
 CCTACTCAGG ATTNACAGT GTGAAGTAGG CTGCCTGTGG GGTGCCCCCTT AGGCTTGGAG 120
 AGCCCCAGAT TGGAGGCAGA CAGACTGCAC CACCCCTTCC CCCCCTGCAT CTCAAGAATA 180
 AAGCAAGCTG CCTTGTACT TGGTTGNAAC 210

SEQ ID NO:4564

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05416

SEQUENCE DESCRIPTION:

GATCANATAG TTGCTGTTTT GTAAAAATGTA ATGTATATNT GGTTTAAAGT AAAATAGGGC 60
 ACCTGTTTCA CAAA 74

SEQ ID NO:4565

SEQUENCE LENGTH:303

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05417

SEQUENCE DESCRIPTION:

GATCCAGAAA CTGAGAAGCT TATCCGAGAG AAAGATGAGG AGCTGCGGCG GATGCAGGAG 60
 ATGCTACACA AAATACAAAA ACAGATGAAG GAGAACTATT AACTGGCTTT CAGCCCTGGA 120
 TATTAAATC TCCTCCTCTT CTCCTGTCC ATGCCGGCCC CTNCCAGCAC CAGCTCTGCT 180
 CAGGCCCTT NAGCTACTNC CACTTCGCCT TACATCCATG CTGACTGNCN AGAGACTNAN 240
 GNGGCANTAA AGTTTAATAA ATCTGTAGGT GGCNNANAGA AAAAGAAAAA AACAAAAANA 300
 AAA 303

SEQ ID NO:4566

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05418

SEQUENCE DESCRIPTION:

GATCGTGT TTAACTTTTC TTTTCCTGTT TTTATTTTGG TATTAAGTCG TTGCCTTTAT 60
 TTGTAAAGCT GTTATAATA TATATTATAT AAATATATNA AAAAGGAAA 109

SEQ ID NO:4567

SEQUENCE LENGTH:303

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05419

SEQUENCE DESCRIPTION:

GATCTGGAGG CAGCAGTGCT GGATGGAATT GTCTAGGCTG TGGCATGTTG GTTTTGTCTT 60
 TCTTTTCTCC TTTGATTATG TAAGAGCTAT TTCATTATAA CTTATTATGG TGATTATACA 120
 GGCAAGAAGA CAAAAGGAG AGAAATGTA CCTCTTCTAC TGGAAATAATG TTTATGATTA 180
 CAAGTGAGAT AAGGTATTTT NATCAATATG AAGGCAACCT TGGCTGATAA AACCTCTATA 240
 GTGAATACTC ACATCTTTNA CTTCACTCAC TATCAATAAT AAATATATTT NCTGACAANG 300
 AAA 303

SEQ ID NO:4568

SEQUENCE LENGTH:230

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05420

SEQUENCE DESCRIPTION:

GATCTCTTTT GTAGAGGATT TCAATGTATT TCTTTATCAT TTGAGTGTGT GTGTGATGGA 60
 CGAATATGTG TGTGAGTTTG AGAAGCATAT CGTTCGTGTC CAGTTACTTT GCAAATTGT 120
 GGACATTTGT GATTGGACAG AGGGGTTTGT GCTGTGGCCT AACACTTGCC AAGTGAGGTG 180
 TAGGTTATGC CTATATGCAA ATTAACTTC ACCTTTCTTG AATATTCAAA 230

SEQ ID NO:4569

SEQUENCE LENGTH:355

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05421

SEQUENCE DESCRIPTION:

GATCCCCAAT TGA CT CAGAG TTTGAGGAGT TAGTATCACA GAATTAGATT TTTTAAAGC 60
 ATTTGTACGT TTCCATTCCC AAATATGTAG CTGTGGTTCT TGAAACACA TCCTACATTG 120
 CATATGGGCA TAGCAGTTTT TGACCCAGGC AGAATAAGTT AATATTAAAT TAAATATTGC 180
 TTTGAAGATG GCGCTCTGGG CATGAGCATG GGGCTCCATG ACTTCCCTTC TATCCCATG 240
 AGCCCTCCT NCATCCAGCG ACAAGCCATG GGCATGCATA CAATGCAGCA AGACCAACAC 300
 ANGNGCAATA TTGAATTGGN TCATTCTATC TAAAAATTAC ATGGGGNGGG ANG TN 355

SEQ ID NO:4570

SEQUENCE LENGTH:353

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05422

SEQUENCE DESCRIPTION:

GATCAGAAAT AAACGACAAA TAGTGTGAGA TGTGTTGTGA ACAGGCATGG TGACCGTGGT 60
 CAGCGCCACT CTGTTTCCT GAAATGTGCT TCTAAGACAG AAAATGTATT TNCTCATCAA 120
 GGGTGTCTGG AGACACAGAC CGTGACCTTG GCGCANGGTG TGCATCAGAG GCGTGTGCTG 180
 AGAAGGGTGG TGTAAAGCTG TGGAAAATGA CTCAAGAGCA ATAAATCAGT GCCAAAGCTT 240
 CCCTGCGCAT CTGAATAGNC ACAAGTGAAG CCCGTGTGCG CACAGTGCAG AGGCCNAGNC 300
 TGTATTCCA GGTAGNGTGG CTTTATTGA CTGTGAATCC ATTTACCTGT TAN 353

SEQ ID NO:4571

SEQUENCE LENGTH:266

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05423

SEQUENCE DESCRIPTION:

GATCGGGTCT ATTCACCCA ATAGTCACTT GTGTGTCCCC CGAAATTGGG ATGGGTGAGC 60
 ACCCTTGCTG TGGGTAAAC TTCCTGTTAT TTAATCTCCC CCACGGTTTC ATTTTNTNT 120
 TCTGTTAATA CTTAGAACTT TCTAAGAAAC TCCATGAAAT GAGGAAATAC TGTTCCTAAT 180
 AATATGAGGA AAGANGTAA ANGTTCATT CCANGTGGCA AGTCTTATTG GACACATTTT 240
 ANATAAGNTC ATGCATACCT GATAAA 266

SEQ ID NO:4572

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05424

SEQUENCE DESCRIPTION:

GATCGCCCGC ATGAGGTGCT GCTGTGCTCG GACCTGGTCA AGGCATACCA GCGCTGCGTG 60
 AGCGCCGCC ACAAGGGNTG AGGAGCAGAC ATCATTCCCT GCCCTGGCAG TGACTTGGAG 120

CCCTGAAGAA GGGCCAATCA TGGGACCACA GCCACTGTGC CCTGCCGTTT CCTGCTGGGC 180
CCCTGCATAT GCCCCTGAGC CTGGGGCTGC CACGTGTTTA GGAAACAAAG TATGCGCTAC 240
TGTCTGAAAA CAAATAAAGC AGATGCCTTT GTTTTCAAA 279

SEQ ID NO:4573

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05425

SEQUENCE DESCRIPTION:

GATCTAGGCC AGTGGCTGCT TGTCTTGTG GAGCTGTGTG TNTNCTNCTN TAAGCAGCTC 60
CTCCCCGGAG TCCCCCAGCA CAGTCCCAGG AGATGACAGG AAGGAAGCAC CAGGGCAAGN 120
CGGACGNTCA N 131

SEQ ID NO:4574

SEQUENCE LENGTH:413

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05427

SEQUENCE DESCRIPTION:

GATCTCACCT TCCACCTCCT CCGGGAAGTC TTGGAATGG CCAGGGCCGA GCAGTTAGCA 60
CAGCAAGCTC ACAGCAACAG GAAACTCATG GAGATTATTG GGAAATAAAA CGGTGCGTTT 120
GGCCAAAAAG ANTCTGCATT TAGCACAAAA AAAATTTAAA AAAATACAGT ATTCTGTACC 180
ATAGCGCTGC TCTTATGCCA TTNGTTTATT TNTATATAGC TTGAAACATN GAGGGAGAGA 240
GGGAGAGAGC CTATACCCCT TACTTAGCAT NCACAAAGTG TATTACGNT GCAGCAGCAN 300
CACANTGTTA TTCGTTTTGG NCTTCGGTTT NGTTNCCGGG GNCAGGTGTT TTTATTAGTG 360
GNGTTTTTAA AAGNGGNTN GTNNGGACCC TGTGAGNA NAANCGGTTT TGN 413

SEQ ID NO:4575

SEQUENCE LENGTH:55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05428

SEQUENCE DESCRIPTION:

GATCACGCCA CTGCACTCCA GCACCTGGG CGACAGAGTG AGACCTGTC TCAA 55

SEQ ID NO:4576

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05429

SEQUENCE DESCRIPTION:

GATCTGGCGT TGCCAGGCAT TCTGTAAGGG AGGGCTTTTC CAGTTCCTGG AAATGGAAC 60
GGAAATNTG GCTGGAAACA TTAATATGGC TGGAAATGGA AA 102

EP 0 679 716 A1

SEQ ID NO:4577
SEQUENCE LENGTH:420
SEQUENCE TYPE:nucleic acid
5 TOPOLOGY:linear
CLONE:HUMGS05430
SEQUENCE DESCRIPTION:
GATCCAAGCT GCTTGAGGGG GTCAACCTTG GACCAAAGTT GCCTTAAGCC TGTGGTAAAA 60
GGGCTTCAGG GAAGGTAAGT GGGCCANCTG CTGGAAGCTG CCAGCTGCCC GGNTGGCAAT 120
10 GGTGTGAGTG TCTTGGCCCT GTCCCTGCCC TGGGGTCCAG CAGGTNATCC CTCCTTCTT 180
CTCTCTCCTT TGGCGTTTGT TCCTGTAGTC ACTGGGCTAA TCTCCCCCTA GCTTGAAGCT 240
GTACATAGGG CCTCCNAGTG CAAATGNTNC TGNCCATACC GTGCACCCTT AGAAGCCTGC 300
GTGTGCATAG AGCGCCCNNT ACTTNCCAGT TAANTTCNA GTTCTTGTTN CNTGAGCTTG 360
15 GTATTTTGTG ATGTGNCAAA TTCTGACTTT TGAAGGTTGG GNAAGTGAAG GGAATTNAN 420

SEQ ID NO:4578
SEQUENCE LENGTH:307
SEQUENCE TYPE:nucleic acid
20 TOPOLOGY:linear
CLONE:HUMGS05431
SEQUENCE DESCRIPTION:
GATCTGGGAC GTCCACGAGT GAGGGGCTGG CCACCCAGCC CGACAGCCTT GCCTGACCAC 60
CCTCCAGCAG ATAGACGCCG GCACCCCTTC CTCTTCCTAG GGTGGAAGNG GCCCTGGGCC 120
25 GAGCCTGTAG ACCTATCGGN TCTCATCCCT TGGGNTAAGC CCCAGTCCAG GTCCAGGAGG 180
NTCCCTCCCT GCCCAGCGAG TCTTNCAGAA GGNGTTTAAA AGGGTTGCAG GTNCCNACCA 240
CTGACCCTTC CCGGNTGGCC TNCTTGCNCA GCTTANAANC TAAAGTCCA GNACGCAGTA 300
30 ACCTNTN 307

SEQ ID NO:4579
SEQUENCE LENGTH:239
SEQUENCE TYPE:nucleic acid
35 TOPOLOGY:linear
CLONE:HUMGS05432
SEQUENCE DESCRIPTION:
GATCCCTCTC CAAAGTGGTT GTCTTTCTNT ACCTTGTGTC TTCTTTGTA AAAATGAAAC 60
40 TCAAAAATAA AATAAATGTG TCAAAATTTG AAAAAAANG AAAACTGAAA AAGCTAACAT 120
GANTTGTGTG AAATTGCATA ATGCTGTANT GCTAATCTAC AATATGTAAT GCTATCTTGT 180
ATGTNGNATT TGTTAATGCA CCACACAAGT GCAANGTAAA GACTGATTCA CNTTGNNNN 239

SEQ ID NO:4580
SEQUENCE LENGTH:51
SEQUENCE TYPE:nucleic acid
45 TOPOLOGY:linear
CLONE:HUMGS05433
SEQUENCE DESCRIPTION:
50 GATCTGACTG TACTAAATAT GAAAAATAAA GCAGCACATA CTTTCTCTAA A 51

SEQ ID NO:4581

SEQUENCE LENGTH:201

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05434

SEQUENCE DESCRIPTION:

GATCCATATA ACTGTTGGGT GCATCAGTGC TTTNAAAGG GGCTGCTTAC TATAGGGTTA 60
 ACTATGTATA TNCATTGTTA AGAGTTAACT TGTGGTTTGG CTGTTTCCTG GATTTNATAA 120
 CATACATGTG CAGAAATGTA TTCAAATGAA AGGNAGCATA CCTTTATCAN GATGCTATTA 180
 AANTTGANCA TCGNGTNTAA A 201

SEQ ID NO:4582

SEQUENCE LENGTH:170

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05435

SEQUENCE DESCRIPTION:

GATCATACAG TGAGGCTACA GTGACTGAGG GGAGAATCCC CTCCTGTTCA CTCTCCCAAC 60
 CCTGCTCCAG CCCCTCAGCT TCCCAGACCC TCATGCANTT GGTGTGAAAT NCTCCCAGGA 120
 GCTGTTTTAC TGTCTACTTT TCAGGATTAA AAAAAANNNN AAAACTTAAA 170

SEQ ID NO:4583

SEQUENCE LENGTH:393

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05436

SEQUENCE DESCRIPTION:

GATCGGACTC TGCCCTGGA CCTGGGAACG ACTGGACTGT CACGGGGTTA CCTCCTAGCT 60
 CTCCCAGTGA ACTCCTGCCA GGCACACACA GCCCCTATAG CACTGAGCTC ACATGGGACT 120
 GGGATATGGG GGCATCTCTT CCCAGAGAG GCACTCAGTG AGCCTCCTGT GCCTGGNCCC 180
 AGCCTGGGCC ATCTCTTAGG TGAGACAGTT GCCCGAACT AAGCCAGGCC TGGCTGGAGG 240
 AGCAGCAGCT TGGGGAGAGG GATTTCCTG CAGACCTCAA GCCATCATGC GGTGGGTGCT 300
 GCCATGACAG AGGCTGGACC NCTGGGCCAG CGGGGTTGCT CAACCACCTT TTGTGCAAGG 360
 TGGCCTTTGT GCTTGCCTT GCAGGCAGAN GTN 393

SEQ ID NO:4584

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05437

SEQUENCE DESCRIPTION:

GATCCTGCCC GAGGAGGAGG ACGAGGGTGC CGACTCCTAA CCCC GCCAGG CAGCCTCGTT 60
 CTGCACAGGC ACTTTAGCCC GAGCCAGGNA CACCTGCGAG GGGGCAGGTG TGCTCCGCCG 120
 CCCTGCTGAT AAGCTGGCTT CATTAACTG ACACTTCTCA AA 162

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SEQ ID NO:4585

SEQUENCE LENGTH:122

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05438

SEQUENCE DESCRIPTION:

GATCTGTAGG GTCAGGAACA CAGCACCTAA CACAGTGCCT TATGGATAGT AGTTTATAA 60
TACAGATGTG TTGGAAGAAT AAATGAATGG GTCCTTTTCA AACAAATTCA CCAGAAGTTA 120
AA 122

SEQ ID NO:4586

SEQUENCE LENGTH:288

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05439

SEQUENCE DESCRIPTION:

GATCTGTCAC CTTCAGCGAG ACCTATTTCC TCCCCACCCC CAGAAACCTC TTGTGTTCTT 60
GCCTAGGCC CAGGTGTTCTT GGCAGCCAAA TCGAGTCTCT CATTTTCTCT TGTGGACCAG 120
TTAGTTTTC CCATAACGCA GTATTCTGAG TTGCAACTG TCTCTCTGAT GTGTGCCTTT 180
TGTTCAACAC AGTAACCCCT GCATTCTGCT CTGCTCTAAT ACACTACCTG GAGAAAGTCT 240
TTTCCTTATT TTCAATAAAT GTCAGACATT ATTGNAAGA AAAAAANTN 288

SEQ ID NO:4587

SEQUENCE LENGTH:188

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05440

SEQUENCE DESCRIPTION:

GATCCCTATG TGGCTAACAG AATTAATGNT TCCAAAAATG TTGNAATTA TATAGTNCTC 60
TTAATTCCCC ACCTCTAACT ATATTTTGG GTTATTCTT TAGGAACAGA TGCCAGGAG 120
TCATATTACT GAGAATCTAG AAATCTTTTG CAAAGTTCTT GTTATNTTGN CAAATTGCTT 180
CCCNNTNN 188

SEQ ID NO:4588

SEQUENCE LENGTH:287

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05441

SEQUENCE DESCRIPTION:

GATCTGCCCC CCTCGGCCTC CCAAAGTGCT GGGATTACAG GCGTGAGCAC CAGTGCCCAG 60
TCCTGCCACA TCTTTTGTG TAGTTGCAGT AGCAATACAA CCTATCTAG AAAAGCTGGC 120
CAAAAAAGAA AATACCATGA TAATAGGTA CCTAATTAT TGCTTTATTT AAGAAAAATG 180
TAATATTCA TTCGAATAAG TACTTTTGGG CTGGGATGNT ATTCATTTA GCTACTTGGC 240
ATGCCACCCA TCTTAGGGAA TTATATGAGG GTTTATACTT TAAAGTN 287

SEQ ID NO:4589

SEQUENCE LENGTH:289

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05442

SEQUENCE DESCRIPTION:

GATCAAAATT TCAAGTTGAC AAATTGGAT TTGAAAATC ATTCACTTT TCAATTTTT 60
 TAATGAGGCA TAACATGCAT ATGGTTAAGT GCACAAATCT TAAGTGACA GTCAGTGAAT 120
 TTTTGCATGT ATGTATGTAC CTGANGCAAG ATATAGAACT TATTTACTTG TAAATAACAG 180
 CTATATTGAT ATGTCACATA CCAAANANTT TACCCTTTAA NTTATACAAT TCAGTGGTTT 240
 TTNGTATATT TGCAAAATTG TGCAACNTC CCNACCATCT AATTCTAGN 289

SEQ ID NO:4590

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05443

SEQUENCE DESCRIPTION:

GATCCTCAAA GAAAGATTG TTAGAGATAG ACAGGTTTAC AATTGTGGA AACCGAATTG 60
 ACTGAATCTG TGGCTTCATG CGCTGAAGAA GCTGGGTCCT GGGGCAACAA GTGCTGTGTT 120
 GCCAGGACAA ATAGATGCTA AACATGGCAC TTAATATTT ATTAAAAAC TTAAATTATT 180
 ATTGGCAAGC AAATCTTAGT ATCTTTCTTC CAGTAATATG GCCTGGCTGA GGGTCAGACC 240
 ACAGGACAGG NGCGACCTCC GGCCTTGACT GTCTGGGAAG CTTGATGGAT TTN 293

SEQ ID NO:4591

SEQUENCE LENGTH:62

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05444

SEQUENCE DESCRIPTION:

GATCCACTTA GAGCAATAAC CACTTTTAA ATGTAAAATA AAAAGACAAA TGNAAGGCA 60
 AA 62

SEQ ID NO:4592

SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05445

SEQUENCE DESCRIPTION:

GATCTTCCCA CTGCACTCCA GCCTGGCCAA TAAGACCTGT CTCCAGCAAG ACCCGNGTCT 60
 CAAA 64

SEQ ID NO:4593

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05446

SEQUENCE DESCRIPTION:

GATCTAGATT CATTAGGAAT GTNTTCTTGT CAGCCAGGCC AGGACCCGGG CTTGCCAAGA 60
GCAGAGGCC TCCAGCAAC CAGGATACCA CCACTTTGGG GGCTTTGTGT ACAGAGGTCC 120
GGGTCTGAGA CCTCATAGGC TGCAGAAATC TGGGGCAGCC ACCATCAAGA AGCCCTCTC 180
AGGGGCCAGA ACTCCTTTGC CAGCGTGGAT TTCTCAAGTC GGGACTGCAT AATTAAAGCA 240
GTTGCAGTTT TATTTTTTTT ACAGCTTTT TCCAAAAAT GATTTGTAGT TGTGTGTGCA 300
GCACTTTCGG CCTGATATGT GTN 323

SEQ ID NO:4594

SEQUENCE LENGTH:70

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05447

SEQUENCE DESCRIPTION:

GATCAAAAAG ATAAGTTTAC AAAGTTGAGA CCTCTCATAA AACAAATGAA TAAAAATTC 60
CTCTTGTA 70

SEQ ID NO:4595

SEQUENCE LENGTH:183

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05448

SEQUENCE DESCRIPTION:

GATCACCTGT GCCTCCCTC CCCCTTTGTT TGCCCTGTG TGGTTGGTCA AGGAGGGATG 60
TGAGGGNAAT AGGGACCCCG CACTTGCCC TCCTGCCTCA GTCTTTCCCC CACCCTGTCT 120
CTTCTTGTC CTTCTCTGGA AAATGCCAAA ATACACGATG TGAATAAAG TACAACGGCT 180
AAA 183

SEQ ID NO:4596

SEQUENCE LENGTH:70

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05451

SEQUENCE DESCRIPTION:

GATCTATAAT TATGCCAATA CCACACTGTC TTGATTACTG TAACTTTAGA ATAAATCTTG 60
AAAGTAGAAA 70

SEQ ID NO:4597

SEQUENCE LENGTH:202

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05452

SEQUENCE DESCRIPTION:

GATCTGCCTG TCAGAGTCCA CGTGTCTCTG TCACTGGTCT TTATAATTGT TGTGCAATAA 60
 CTAAAGGCTA AGGACTAGAT GCACTATCGT GTAAAGAGAT TACACATGAC TGTACCATGT 120
 TGCACCTAAT CAAATAGTAT GTGGGGNTTT AAAATCGCTT GCATTGTTTC AAAAAATAAA 180
 TATCTCAATG TCAAATACTA AA 202

SEQ ID NO:4598

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05453

SEQUENCE DESCRIPTION:

GATCCTGGNG CCTGGACCGG GCTGGANGAC AGCTGAGNAT GGGCCTAGCA GATGAAGCTT 60
 GCCAGCAAGG CCAAAGCAAA CGGTTTCTNC TGTGGATAGT GGACAGAGAC CTTGTAAACC 120
 AATGGAATTA TTCATTTTNC TCTATCINN 149

SEQ ID NO:4599

SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05454

SEQUENCE DESCRIPTION:

GATCAAGCAA TGGAAAAATT TGCACCACCG TGTCCCATGA AATTGTTTCA ATGTTTAGTT 60
 TAGATATTGC TAACTTGTGC TATTAACCTT TTGACAAGCG TGTAGTATTG TTTGTTTTGG 120
 GTTTCTTTTT GATTTATAAC TATTTAGTAG TCCCCAGCTA GCTACCAGTA CAGATTTTAC 180
 CCCATGGGTA GGATTCTATT GTTAAGCCAC ATAACAAAGC ACACCTAATC TGACANCACT 240
 GCAAAATGGAA AATACGAACC AAAAAAAGT TACACCGATA AGTTCANCA ACTGTCCATT 300
 TTTGGATATT N 311

SEQ ID NO:4600

SEQUENCE LENGTH:221

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05455

SEQUENCE DESCRIPTION:

GATCCTGCCT TTTCTTTTC CCCACAACCT CACGCCAGNA GTTCGTTTAC ATCAGGTAAA 60
 TCTTGAGAAA GCCTTGGTGC CCTCCTCCCC ACCCCCCACT CAGTAACCAC GTGCGTGAC 120
 CCCCAGNATCC TTTCTCAGTA GTTAAGACGT TCTAGGCAAT ACCATAGACA CATCTGACTG 180
 TGTCTCTNTC TTTGAGTGCA AGAACTCAA GTNATCTTAA A 221

SEQ ID NO:4601

SEQUENCE LENGTH:176

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05456

EP 0 679 716 A1

SEQUENCE DESCRIPTION:

GATCAGAGCA GCTACACTGA AGCAAAAACC CCAGCGCCCA ACGCTAAATA TATTGCAATG 60
 GAGAAACCGT CCACAATGGG GTGTCTCTGT CCTTAGCAGA GCCTTGGGGC TGCCGTTTAA 120
 GACCCTCTGT CTACTCCAC CCTTTTAGCA TCTAGTAAAC CACGCGCTGT AACAAA 176

SEQ ID NO:4602

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05458

SEQUENCE DESCRIPTION:

GATCTCTATC ACTTTGCCAC CTGTTTGATG TGCAGTGGAA ACTGGTTAAG CCAGTTGTTC 60
 ATACTTCGTT TACAAATATA AAGATAGCTG TTTAGGATAT TTTGTTACAT ATTNGTAAAT 120
 TTTNGAAATG CTAGTAATGT GTTTTCACCA GCAAGTATTT GTTGCAAACT TAATGTCATT 180
 TTCCTTAAGA TGGTTACAGC TATGTAACCT GGTATTATTN CTGGGNCGGG CTNTTTTAAA 240
 ATACNAGNCC NGGCCAANAN AAANTAGGAN CAAAAACCTN GGGGGTTCTG AAA 293

SEQ ID NO:4603

SEQUENCE LENGTH:184

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05459

SEQUENCE DESCRIPTION:

GATCAGGGAT GGGGATGAGG TGAGGGGATT TGCTAGAAAG GGGTGCAAAG GAATTTAGCG 60
 GGTGATGGAG CTGTTCTGTG TCTTGATTGT GGAGTTATTA CAAGACGGTT ATTACAGTTT 120
 TGTTGTATTG AATTTTACTG TATGAAAATC ATACCGCAAT AAACCTCACT CACATACGCA 180
 CAAA 184

SEQ ID NO:4604

SEQUENCE LENGTH:372

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05460

SEQUENCE DESCRIPTION:

GATCAAGGAA TCTTTCATGA AGGAAATTTA AATACAGAAT GAAACATTAA NGGTAAAAGT 60
 GGAGTAATTA TTTAAATTAT GTGTATAAAA GGAATCAAAT TTTGAGTAAA CATGATGTAT 120
 TACATCATCT TCGGAAATAG ATATGATGGA TTCTAGTGAA GACCAAANTT ACTTCTGTTT 180
 ACTTTCTATC AGGAAGCATC TCCATTGTAA ATATGTATTT NCATGTTTAT TACAAAGACC 240
 CAAATGANAA NTTTTNNGTC CATTTTNGC ATAGCCTAAT GGTAGACTNG GAATAANAGT 300
 TCTGTATTIN TGGGATTTC NGNGTATAAN NCTGGTTTCT AGNTGGGGCG TTAAGTCCCN 360
 TTTGGGTAAA NN 372

SEQ ID NO:4605

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05461

SEQUENCE DESCRIPTION:

5 GATCATGTAG GACGCGGCAT CCTGCCCTG GTAGAGAGGA CGAATGTNCC ACACCATGGT 60
 GTCTACGAAA AANAAATAGT TAGTCACCTT CTNACCTTCT CCTCTTTCTC AAAGCCTTCT 120
 GTCCCTGGTT TTTGCAAGTN CTGCATTTC GCGGAGAATC CGCGTTGCCT ACTGCTGCCA 180
 CCTCCTGTNC ATTTAGAACT ATGCAAAGAC TCCGNTTCCG TTTTCCTGAG CTCCTNGGGC 240
 10 CCCAGAGTCT CTGTTTGATT ATTTATTAT TTATTNAGN 279

SEQ ID NO:4606

SEQUENCE LENGTH:324

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS05462

SEQUENCE DESCRIPTION:

20 GATCGAATTT CACATTGTAG AGATGTATAG CTGTGATTAA GCTGCATATG TATGCTGGGA 60
 AACGGCTTGA GTGGATGGCT AATATAAAG TTGTTGGCCA TAATGCCACA CCTCTCATCT 120
 GCTTGAAATA TGGACCAAGTA TTCTAAAGTA TCAGCTACTG GGTCTCATT CACTACAAGA 180
 TAANTTCAA CTTCACAGNA CTTTGCAGCA GTTCACCACC AGGCGGGACT GTGTCTGCAA 240
 ACTCNCTTGT CTTCACAGAC GNCTGATTAA NGCNANNCT CTGGNNTCTC AAAGATNTAT 300
 25 TGGGGAGTGN NGGTTTTNTG GGNN 324

SEQ ID NO:4607

SEQUENCE LENGTH:225

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS05464

SEQUENCE DESCRIPTION:

35 GATCACAGAC CTAAGGCCCA GGCCACCTNT CCANACCTGG AATCTATGCA NAANTAATTT 60
 CCCCTTAACC TGGGAGGCAG CGACACGTGT NACTTCTGTA AGAAACGTGT GTACGTAATG 120
 GAACGGCTGA GCGCCGAGGG CCACTTNTTC CACCGGNAGT NTTCCGATG CAGCATCTGT 180
 GCCACCACCT TGCGCCTGGC CGTCTACACC TTNANTGCN ATGAN 225

SEQ ID NO:4608

SEQUENCE LENGTH:251

SEQUENCE TYPE:nucleic acid

40 TOPOLOGY:linear

CLONE:HUMGS05465

SEQUENCE DESCRIPTION:

45 GATCTAAATN CAGACTNNGG AGTTGGGAGG AGGNACCAA GTGAACCATC CTTCAATTTAT 60
 TCAGTCATTC GTTCATCTGT CAAACACGTA TTTGGACATC AAGGTTGCAG AGATGAACAA 120
 TGCATGGNTT TCATCTTTNA GGAGTTCAA ACCTAGTGGA GAGANCACAT GGTACAATCG 180
 TAACACATGA AGGTCAAGTA AGTNCTGCAG TAAAGGTACT AATAACATGT TCCTTGGNNC 240
 50 AGNAGGATGN N 251

55

SEQ ID NO:4609

SEQUENCE LENGTH:239

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05466

SEQUENCE DESCRIPTION:

GATCCAAGTG TTGCCTGTCA GCAGAGATAG GAGTGAAGTT GATGATGATG GTTAGATGGC 60
 CTCACAAGGG ACTCTAGTGA TAGTAAAGGT TCCAGTGGCA AACACACAAG TGAAGAAGTT 120
 GAATATAGTT TCATAATGTT TGAGAGTGTA AAAAATGCAT TTTTAAATTA ATACATTACT 180
 TTCTGTACTA TTTTAAATAA GTGTGTATCT AAATAAACAC ATAANATGTT ATGAGTAAA 239

SEQ ID NO:4610

SEQUENCE LENGTH:344

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05467

SEQUENCE DESCRIPTION:

GATCATCCTG GCTGGGAGAA GTGGGACCGA GCCACCCAGC TNCATATCC CCAAGCNGCG 60
 CTACAGCCGG GATGGGAGGC ACGTGGCCTC TCTTTTATCC GTCTATTAT NTTGTAAGTG 120
 TATTCGTGTG GAGGAGGTTG TTGCTTTATT TTTTAAAGGC TCTGGAGTNT TGTGTATGGT 180
 TTCTTTTAC ATCNGGGCNT CCCATGGGCA CTTCTAAGAA GAGAGGGGAT TTCTTTGAAA 240
 AGGAGAGAGG AATCCCCTAG AGCAGGGGAA GCANTGCCTG CCAGCTNTTG TGCACCTTNC 300
 GGGNGAANTT AAATATNCNN NAAATTTTCA AACCAGNGAA AANN 344

SEQ ID NO:4611

SEQUENCE LENGTH:128

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05468

SEQUENCE DESCRIPTION:

GATCTCTCTC TCTCTCTCCC TTTCCTCTCT CTCTGTTGGA TGCTTCTGTA TCTTTTCCA 60
 CAGCATAATG TCTGGTGTGA TGGGGAGCTA TTTATTGAAA TNAAGATTA TNTATTGTG 120
 CCATGAAA 128

SEQ ID NO:4612

SEQUENCE LENGTH:92

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05469

SEQUENCE DESCRIPTION:

GATCCATTTC TGGGATAGAA TTGTATTTT TAAGTCATTT TTTTCTTG AAATGGATAT 60
 GTACAAATAA AATAAATGGA AGACAGGATA AA 92

SEQ ID NO:4613

SEQUENCE LENGTH:130

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05470

SEQUENCE DESCRIPTION:

GATCCAACAC ATTCANGTCA GTAGAANCAA ACCAAAACAT GCAAGCTTCA GCCTGNTCGA 60
GTTCTATAGT TGTACCTAA ATCGTATGTT GTATGATACA TANGGTTATG TATTAGCNCG 120
TAGCCGNGGN 130

SEQ ID NO:4614

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05471

SEQUENCE DESCRIPTION:

GATCACAGCT NCCCTTGAAT CTCATTGCCT CAGAGAAGAC TAGAGGGCTC TTGGACTATC 60
CCTAGGGCTA CACAAGAATA GTTCAGCCTT CTGCCATGCC ACACAGCCTC AGCTTGAATC 120
TGGTTCATTG CGTCCTCGTG TTCTTCTCTC ATCCTTGCCT TANACCAGGG ATTCTGATAC 180
CGAAGAAGAG GGGCCAATGA AAACCATGGA GTCTGTTCTG GACTCCCAGG GCTGGGACAT 240
TATGTAGGAG CCACTTCATA AACATTCTCT TTACTCAA 279

SEQ ID NO:4615

SEQUENCE LENGTH:333

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05472

SEQUENCE DESCRIPTION:

GATCAGTCAT GTGTCCGTAA CCTCGTTCCA TGACATCAGG ATAGCTGTGT TTGCACACCA 60
TGCTCCATGT NCATTCCGGAG CCAGGAGGGG TTCTNAGTGG AGCCTGGCTT AGGGAACAGG 120
GAGCGATGGA AGAATGCCAA CATTAGCGTT GGTCTTCTCT TGTNAGGAAT NAAGGATGCT 180
TGCACACATG CACCCCTCA CTCTCACACT TGCACACATA CACACACACA CACACGAANA 240
TGGTTGGTTT GTCAAAANTC ACTGTAGTAC ATAAAGNTTG CACTCTGNGT NNNNATATCT 300
AGCNGNATGG GGGGTACGNT TTGGGCGGT GTN 333

SEQ ID NO:4616

SEQUENCE LENGTH:335

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05474

SEQUENCE DESCRIPTION:

GATCTCTTCC CACCTACCCT ACCTACTCCT ACCCAANACC CCCCTTCCCC ATTAATGTGA 60
GTAATGAATT AGCCTGACCA CAGGTGGTCA CTGTAGGCTA ATGGAAAATA CCCAAGGGNG 120
GGCAAAAGCCC CCCATCAGAT GCATGAAGGT TTGCNAATGT TGAAGCCAC TGCCCCACAC 180
ACTGTGTCTT TATAGANTTN CCCTTTCCCN CACCCTCTTC CTGTNTCCAA CCTGGGACAC 240
ANCTTNGCTC AAAGNGCTGG TGGNTTGTGG GGCATTAATC TACAACCANA GTCCTGAATG 300
GAGGCAAAGA GGGCCCCACN GGNTTTGNGG GGNTN 335

SEQ ID NO:4617

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05475

SEQUENCE DESCRIPTION:

GATCCATTCA CATTGCAAAC TTATCCTACT GTATAGCCAT CCATTGTAAG AATACATTTT 60
 TCNATTTATA TTGTGTACAT TACTCCAGTG AACATTCTNN ANCTCCTCTT TTNGTATCCT 120
 GTGCAAGANT N 131

SEQ ID NO:4618

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05476

SEQUENCE DESCRIPTION:

GATCTCAGCT ACGTGGGAGG CTGAGGCAGG AGAATCTCTT GAACCTAGGA GGCAGAGGTT 60
 GCAGTGAGCC AAGATTGTNC CAGCCTGGGC GACAGGGTGA GGCTCTTGTC TCAAAAAAAA 120
 AAGTCCACAT CTTCATGANC CCTCAGACTC TGGAGTTGGG TGTCGGCTTT TTAGCCAGN 180
 TTTTGTGGGA ATTGCCTTTN NCCTATTTAA GANGGAANGT GGGTAATGGA GTCCCAGCCA 240
 CTCANGAGNC TGGNTATCCC CCGAGANTGG CTTGGGTTAC CAGCTATGGA CCCTTGGAAG 300
 ATGANTCTAN ATCCTTCTCA CNN 323

SEQ ID NO:4619

SEQUENCE LENGTH:346

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05477

SEQUENCE DESCRIPTION:

GATCACCTCT CTGTATCCCC CACCCACTAT CCCATTTNCC CTCCTCCTCA GCTAGGGCCA 60
 CGCGGCCCCA CATTGCACCT CTGGGGGGTG ACCGACTTCG TACACGGGTT TAAAGTTTAT 120
 TTTNATGGTT TAGTCATTGC AGAGTTCTTA TTTTGGGGGG AGGGAAAGGG GGCTAGTCCC 180
 CTTCTTTTGG CCCTCCGCCC CCGCAGGCTT CTGTGTGCTG CTAAGTGTAT TTATTGTNAT 240
 GCCTTGGTCA GGGCCCCCTCT ACCCACTTCT CCCAGTAAGT TGTGGCCCCA AGCCCNATC 300
 CNTGTGCTGT GTGGAGTGGN CAACCTGACC CCCGNAAGNG GGNNAN 346

SEQ ID NO:4620

SEQUENCE LENGTH:343

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05478

SEQUENCE DESCRIPTION:

GATCTTTTAA AGGATAGACG TGGTCTCATG CTTCTTTTGT NCGACTCCGT TTAAAGGAG 60
 CATTGTAACC ACTATCCTCA TCCCTACAAA AATCCAGTGG ATGCACTTCC AAATTACTTC 120

TGTCATTTTG TATGTGTTGT GTTTAGGGNT GCGTAATTTT CACTGGATGN TGAGATACAT 180
 GGTGATACTA TGTCAGTTTA TTCTCTGTGA ATATGTCTGT ACATAGNCAG GAAGCTCTAC 240
 TTATTTGTNC ATAGGCTGTC TGANGTATGT ACTTCTGTCA CATGGNCTTC ATTCTGATAA 300
 AGGGTGTTC TCCCTTGNTT CACTGTCCAT ACCTTTGTGN NGN 343

SEQ ID NO:4621

SEQUENCE LENGTH:50

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05479

SEQUENCE DESCRIPTION:

GATCCTTCTG TGCTTGCTTG CATCTTTAAT AAAGACATGT TCCCGGCAAA 50

SEQ ID NO:4622

SEQUENCE LENGTH:170

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05480

SEQUENCE DESCRIPTION:

GATCCAGCTA GGCTGGGACA CTCCTAAAT CAGCTGCGTG TTGTTAGCAT CAGGCAGAAT 60

GAATGGCAGA GAGTGATTCT GTCTTCATAG AGGGTGGGGT ACTTCTCCAT AAGGCATCTC 120

AGTCAAATCC CCATCACTGT CATAAATNCA GNGGNAATNG NCTGNACAAA 170

SEQ ID NO:4623

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05481

SEQUENCE DESCRIPTION:

GATCCTCTCT GTGTAAATCC TGCCCGGTGC TGTNAAGGCT GGACGGTGGA GGACCTGCTG 60

GGGTCTCCTG GNACCCGCCT GTTGCTTCTN CCTCCCCTG TGGAAAGGTC TATATNACGG 120

GCTGCCTGAG GCCCAGAAC TCGTCTGTAA ACCACCTTTT CCAGCCAGAG TTCCCAAAGC 180

TGGAACGCTA GCTGCCTGCT CTTCCTTAAG NTGGCCTCCC CCNGACCCGT CANGGTCCTC 240

AGTTGCCAGG GCTGGGGCCA NCCACTGTNA CACTGNGGNN TGCANGANAN 290

SEQ ID NO:4624

SEQUENCE LENGTH:125

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05482

SEQUENCE DESCRIPTION:

GATCCAGCTT CAGCTGCACA CCTCTGTCCC CTTGGATGGG GAACTAAGGG AAAACGTCTG 60

TTGTATCACT GAAGTTTTTT GTTTTGTTC TATACCGTGT CTGANTAAAA ATNCCCACNG 120

TTAAA 125

EP 0 679 716 A1

SEQ ID NO:4625
SEQUENCE LENGTH:252
SEQUENCE TYPE:nucleic acid

5 TOPOLOGY:linear

CLONE:HUMGS05483

SEQUENCE DESCRIPTION:

10 GATCCTGACC CCAGCCAACA GCTGAGCTGC CGGGCCTCCT CGAGGCCCTA AGCCAGCCCC 60
AGAGGTCCCA TCTNAAGCTG GAGTACCCTG GGGTCAGCAG CAAGAGAAAAG AAGNGGAGAT 120
TTTNTGTTTN TTTTCCCT CAGCCCTGCC ACCGTGGGGA GTCTGGTTT TNTCTTCATC 180
CTGTCTCTCT CCTCCTTACT CTTGGATAAA TAAACAGCCT GTGAGCACAC AGGCAAGCCC 240
GGCCCAGTGA AA 252

15 SEQ ID NO:4626
SEQUENCE LENGTH:334
SEQUENCE TYPE:nucleic acid

20 TOPOLOGY:linear

CLONE:HUMGS05484

SEQUENCE DESCRIPTION:

25 GATCGTNACA AATCTNCCCT CCTCACCAGC TAGTCTGGGG TTTCCTCTCC CTGCCCCAGG 60
CCAGAACTGC CTTCTTCATT TCCACCCAGC CTCCCAGCCT CTTAGCTGAA AGCACAAATG 120
GTGAAATCAG TAGTCTCGNT CCATCTNNA TAGACTAAAC CTAATGCCT CTAGGACGGA 180
CTGTTGCTAT CCAAGNGTTT GGTGTTACCT TCTCCTGGGA GGTCTGCTG CAAACTCAAG 240
TTCCNCAGGA TGGTCAAGNT GTCANGANAT ACAAGTTTNC ATCAATTGTA ATTATTACCT 300
GGTCTTTNCA ANTTTGCAAN GGNGTTTGG GNTN 334

30 SEQ ID NO:4627
SEQUENCE LENGTH:192
SEQUENCE TYPE:nucleic acid

35 TOPOLOGY:linear

CLONE:HUMGS05485

SEQUENCE DESCRIPTION:

40 GATCTTCCAT CAGGGCCGGA GTAAATCCCT AAGTGNTCA ACTGCCCTCT CCCTGGCAGC 60
CATCTTGTC CCTCTATTCC TCTAGGGAGC ACTGTGCCCA CTCTTCTGG GTTTTCCANG 120
GGANTGGGCT TNCAAGGTNG GNGTNTCTGT AAAATCAACA GGTAATAAAA ACTGTGTATG 180
AGNCCNGGCA AA 192

45 SEQ ID NO:4628
SEQUENCE LENGTH:315
SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05486

SEQUENCE DESCRIPTION:

50 GATCTACAAT NAGATATCAC TTAACACTCA CTGGAATAGA TATATAATCA AAGTGATAAT 60
ATCAAGTGTT GNGAGGATG CAGAGAAATT GGNACCTCA TGCCTGTTG GTGGATACCC 120
ACGTGATATN AAAACAAATG TCTACACAAA AACTTGTCAG CAGATGTTCT TTGCAGCATT 180

ATTATAATA GCCCAAAT GANACAGCCC TANTTTCTAT CAACTNACAG GTGAATAATC 240
 ANAACGTGGC ATATCCATNC ATGGNGTATT ATTCAGCATT ANANNATGGG ATGAAGTACT 300
 GGTATGCACC ACTCN 315

SEQ ID NO:4629

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05488

SEQUENCE DESCRIPTION:

GATCTGAAAT NATGGTTCAA AAAATACATT CATAATAAAA GTCTTAACAA A 51

SEQ ID NO:4630

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05490

SEQUENCE DESCRIPTION:

GATCAATGCC CNTNTNTCAG TCTCATCTGT ACTCACGGCA GCCCTGTGGA GTACGGTGTA 60
 CTGGCCCAGC TTACAGATGC AGAAAGCGAG ACGTTCTGCC ATNAGATAAA GTCACGTGGC 120
 TCTTTAGTAN CACGGACAAG GCTCCTCGCC AAGGAACTCG TGGCAGAAGA GGGCAGCAGT 180
 TGGCAGTAGC TGCCGATGTC TGTCCCCAGC TNCACCATTC CTCCTGTGG CTGTGCCATG 240
 CTCGTGGTTT CAGTNTCCGT GTGTNCATGT GNCTNCCCTT NAAGAGCTCG CANCTGGTGT 300
 GCTTNGGGGG TCCCAGGGCT GTGTAGNGTN TTCTNCN 337

SEQ ID NO:4631

SEQUENCE LENGTH:90

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05491

SEQUENCE DESCRIPTION:

GATCTGTCTA TTTCGTTTAT CCATAGTTGC CTNACTCCCC GTCGTGTAGA TAACTACGAT 60
 ACGGGAGGGC TTACCATTTC TTCCCTGAAA 90

SEQ ID NO:4632

SEQUENCE LENGTH:97

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05492

SEQUENCE DESCRIPTION:

GATCAAAGGC TCTTTCCTCT TTTGTTTGAG AGTTGGTTGT TTTAAAGCTT AATGTATGTT 60
 TCTATTTNAA AATAAATTTT TCTGGCTGTG GCAGAAA 97

SEQ ID NO:4633

SEQUENCE LENGTH:320

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05493

SEQUENCE DESCRIPTION:

GATCATCGTA TGCAACAGCT GGGTAATAAG ACTGGCATAG CTCAAACTAT CCTGCCAAAC 60
GCTCTCATCT GATTTTCTCT CCCTTCTCCC CCAACCTCCA ATCACCCTGA GTCACCTGTA 120
AATTCATTG TCATTCAAAG CGGAATAACA AGTTGTCCCT AGCAAAACCG CTGAGCGCTT 180
TATAATTTTG TGGTGTATTT TTGTCACTAG GTAGCAGAGG CGGAAGTATT TTTTGGTGTGTA 240
ATTCTTGAAA TTTTCTGACA GGAAACCGGN TAAAGATAGA TGTGTCTGAG GNTAAAAAAN 300
GTTNGGNNNG NNNTGNTTTN 320

SEQ ID NO:4634

SEQUENCE LENGTH:146

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05494

SEQUENCE DESCRIPTION:

GATCTATGAA ATAGGTAACA TTTGAGTAGG TGTCAATTAA ANATAGTTGG TGAATGTCAC 60
NTATGCCITC TATGTTGTTT GCTCTGTAGA CATGAAAATA AACAATATCT CTCGATGATA 120
ATTTGTATTA AGTAATCTAT AAGAAA 146

SEQ ID NO:4635

SEQUENCE LENGTH:177

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05495

SEQUENCE DESCRIPTION:

GATCTATCCA GCTGCTTCCT TGTAGCCAAG AATGTGTTCA ATGAATTGTG ATTCACTGAT 60
TTTATTGATT TTGTTTTAAA ACAGGGAGAC TGGTATTTTT GAAGCTGCTA TCATTTTCTA 120
TTTCTNTATT AATNNCTTTG TAATCATCTT ATTAAAGTTT TCTTATTTAG TGGGAAA 177

SEQ ID NO:4636

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05496

SEQUENCE DESCRIPTION:

GATCCTCTCC TTGTATGTAA TACCTTTTTT TCCCCTTTCT AGCAAGTACT TTCAAAAGAA 60
CTCTGTACAT TTAAACATAA AAAATAAATT ATGTTGAGCC AAA 103

SEQ ID NO:4637

SEQUENCE LENGTH:145

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05497

EP 0 679 716 A1

SEQUENCE DESCRIPTION:

GATCCATTTG TAACTACTCT TAATATATGG TACATAGTTT AAAAAATTN ATTGAGCTTA 60
 AAGTGTATCT AGTTTTGTGT CCTAATTATC CTGCTTAACC TTCTATTGTA AGGNTTTNCC 120
 ACGTCAATAA ATATTATAAT GTAAA 145

SEQ ID NO:4638

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05498

SEQUENCE DESCRIPTION:

GATCANCAAA CTCAACACCA TCTTGCAGGA GCAACGGGNT GGCCTTTAAC ATTGCTGAGG 60
 CTTTCAAAGA TGTGTCAGAA CCCATTGTAT TTCTGCAACA GATGCAGGAG TTTAGAGAGA 120
 AAATCAAAGT AATCAAGGAA ACTCCTTTAC CTCCTCTAA TTTGCCTGCA AGCCCTTTAA 180
 TGAAGAACTT TGATACCAGT CAGTGGGAAG ACATAAACT AGTCGGTGTG GATAAACTTT 240
 CTTTGCCTCA AGACACTGGC ACATTCATTN GCAAGGNTN 279

SEQ ID NO:4639

SEQUENCE LENGTH:242

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05502

SEQUENCE DESCRIPTION:

GATCAGAGCA AAGAGAAAAG AAAGCATAAG GACACTTACT CAACAGAAGC ACCTTTAGGC 60
 GAAGGAACAG AACAATATGT CAATAGTATC TCAGATTGAC CATTTCTGTT ACTTGTCAAT 120
 TCTACTTTCA GAACTAAAT GACTTTCAA TTTGGGTATA GACAATAAAG AACTGAAGTG 180
 CTCCTACTC AGTGATTGG AAATTTTGAT GCTTGATAA ATGTCAGATA ATTAATTTCN 240
 AN 242

SEQ ID NO:4640

SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05503

SEQUENCE DESCRIPTION:

GATCTTGTTA GACACATGAA TGTGTATAAT CATGTAAAT GCAAATAAAA CTAGTTCATA 60
 GAAA 64

SEQ ID NO:4641

SEQUENCE LENGTH:62

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05504

SEQUENCE DESCRIPTION:

GATCATNAAG GTAAGGACTG GAGTNATGCA GCCACAAACC AAGGAATATC AGTAGCCATA 60

AA

62

SEQ ID NO:4642

SEQUENCE LENGTH:339

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05505

SEQUENCE DESCRIPTION:

GATCAGTNCT AACCTGAGC TGGCGGCTAT CTTTGAAAGT ATCCNGAAAG ATTCATCATC 60
 TACTAACTTG GAATCAATGG AACTAGTTA GATGTTTGT CACCATGGGG ACCATTACAT 120
 ATGACCATAC AATGCACTGA ATTGACAGGT TAATCATAAG ACATGGAAAG AGAAGTGTCT 180
 AAAAGCTTCA AAATGTTCCA CTTTTTTTTT CCTTCATGGN GACTGTTTGT TTGGCTTTCT 240
 TCCATTGTNG TTTTGTAGC ATTTATTTC AAAATGTGTA TTTCCATAAT CCAGAGGTTG 300
 TAAAACCACT AGTGTTTTAG TGGGTTACAG CACATTNN 339

SEQ ID NO:4643

SEQUENCE LENGTH:70

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05506

SEQUENCE DESCRIPTION:

GATCTTCCTC CTTATTTTAA TGCTTCTTTC TCTTTACAAT TAAAAGTTCA TAAAATCTTT 60
 CAACATTAAA 70

SEQ ID NO:4644

SEQUENCE LENGTH:57

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05507

SEQUENCE DESCRIPTION:

GATCAGCCCT AATNATGCTG TGTCATGAT GCTTTTAATA AAAACAACCC CCACAAA 57

SEQ ID NO:4645

SEQUENCE LENGTH:158

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05508

SEQUENCE DESCRIPTION:

GATCTCTATG CCAATATGC TGCCTCAACT CTGAGCTGTC TGCAAGGCTT AGTAAGTATT 60
 GAGTGGTGT TTTTTTTT NTTTTATACA ATACCATNTT AACCACATGA GTTAAATAAA 120
 TTTGAGAAGT TTTTTTAAA CAGTGCTTCA AACTGAAA 158

SEQ ID NO:4646

SEQUENCE LENGTH:153

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05509

SEQUENCE DESCRIPTION:

5 GATCCCCGGG TACNANTNAN CCATGCAGGC ATGTTTTTTT TNATTTTGC ATAGGCAATC 60
 CATTCTGTAC AGGTAGCTAA CTTTGTAAAC GCTGTGTATT CCCTCTGCCC CCATGGCTGC 120
 TGGTGTAAT AACTGCATC TCCCGTTGGT AAA 153

SEQ ID NO:4647

10 SEQUENCE LENGTH:342

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05510

15 SEQUENCE DESCRIPTION:

GATCCAGAAG TCATTAAGG AACATAAGG CTGGGGAGGC AGGGGGAGTA AGTTCTATTA 60
 GAAAACTCTA ANAGCTTAAC AAAACTAGGG TACTAAATTC AGTTATAACA TGTTACAGAC 120
 TTAAATCATA GAGCTGCCCC AACATCTAGA CAGTCTCTCC TACTGATTAT AAATGAGTGA 180
 20 AAATATCAG TTAGAAAAAT CTAATTTAAG TTGTTAATAC ATGTTTCTTT GGTGAGCACC 240
 TGGATATANT TATCACAAAT NCTTTTATAC ATATGTCGAA AATGCTTTCA ACAAACCTAA 300
 GTGTCCTAAT TACATGCCAC TTTTNNAGG CTCACCTTAT GN 342

SEQ ID NO:4648

25 SEQUENCE LENGTH:333

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05511

30 SEQUENCE DESCRIPTION:

GATCGCTACG GTTCTAAATA CTGAAGTCAT GATGTGTATT TCCNGGAGAA ATTCCTCTTT 60
 AAATGAACAA GTAACCACAT CTCAGGCGGC AGTGAAGTCC AGATAGTTT GCAGATTGTT 120
 TTGCTACTN TNCATATGGT ATATGTTTCT GNTTTTAAAT ATTNCTNTTG AGAAATTCTG 180
 35 AGTNTGTATG TAGGAGCTTT CCTGTNATNN CTGTTTCACG TTCCTTCCTG TCACACCCTC 240
 CTTGTGGCGT CTCTGTGTAT ATCCTNGGCT TTATTTTCTN GGANCCTGN GATTTCACAA 300
 CTGNGGGCCT GGAGACCTCG GCTCCTNCTG GTN 333

SEQ ID NO:4649

40 SEQUENCE LENGTH:187

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05513

45 SEQUENCE DESCRIPTION:

GATCATGAGA AATTACCAAA ATGTCCACCA ATAGAATGAG TGAATCACCT GTGGTATATT 60
 TATAAATAAA AATATTAANT AGAAGGTAAA ACAAATCAGA CATACACACA TTAGATAGAT 120
 AAATTTAGAG GAAAAAAAAA AAACCATGCA AGNTTCAGCT NCNCGNGTNC TNTGGTGNCA 180
 CCTAANN 187

50

SEQ ID NO:4650

55

SEQUENCE LENGTH:228

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05514

SEQUENCE DESCRIPTION:

GATCGAGGGG GTATGCGTGG GGGAGTTGTG AGTGAGCTCA GCTCCTTTCA GGCCTGGCCT 60
 CTCCAGAAC AGAGTGAAGC CCCTGCCCTG GACCCCTGCT CCCTTCTACC CTTGAGGGCC 120
 ACCAATGGAA GAGCCCGCCC TTCATTCTGC AGCTCCTGCG GCCAGGCTGA GCTCTGCCCC 180
 CAACTTTGTT TTCTCTCATG TTCTCAATAC ACTCTGCCTC AAATCAAA 228

SEQ ID NO:4651

SEQUENCE LENGTH:300

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05515

SEQUENCE DESCRIPTION:

GATCTGTAGT TAAGGGAACC AAGGGGTCAT TGGGGCAAAA GCATTGTTTC TCAAAGCTCC 60
 TTGATTAAGA GAAAGAACAG AAATTTGCAC AGAAGATAGT GTCAAGGAGT GAGAAAGTTT 120
 GTTTGAGGGC AGTAGCTCAG TGTGGAAGAA AATCCTGAAG TTTCTGTTGA AGCCATACAA 180
 TGTTCATG GGTACTCTC TAAGACATT TCTGAGGTGT GTGAGGAAGT CACTACTCCT 240
 AGCCTTTGTT AAGATGTAAT TTTAAATATT CAGTTATGGT ACTATGTTG CAACTCTCTN 300

SEQ ID NO:4652

SEQUENCE LENGTH:154

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05516

SEQUENCE DESCRIPTION:

GATCAGTTTA TATTGCTCTT AAATGATAAT CCTCAGCTTC CAAGTTTTTG TGAAGTCACT 60
 TTGGTTTATG TGTTTGCTAC ACTCACTGAG AAATTAAACA CCTTGCTTGA TTTATTGTAA 120
 AAAGGAAAAA ACAACAGAGC CATACTTAAG CAAA 154

SEQ ID NO:4653

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05518

SEQUENCE DESCRIPTION:

GATCTTTATG CTGTTATNAC AGGAGAAGTG ACATACTTTA TATATGTTTA TATTAGCAAG 60
 GTCTGTTTTT ANTACNATAT ACTTTATATT TCTATACATN TATATTNCTA ATAATACAGN 120
 TATCACTGAT ATATGTAGAC ACTTTTAGAA TTTATTAAAT CCTTGACCTT GNGCATTATA 180
 GCATTCCATT AGCAAGAGTT GTACCCCCNC CCCAGTCTTC GNCTNCCTCG GGNTTAAGCT 240
 GTTTTATGNN 250

SEQ ID NO:4654

SEQUENCE LENGTH:240

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05519

SEQUENCE DESCRIPTION:

GATCCCCACC CCAATTCAAT CCCGGAAGGG ACTTACTTAG GAAACCC TTC TTAGTAGAT 60
 ATCCTGGCCC CCTGGGCTTG TNAACACCTC CTAGCCACAT CACTACAGTA CAGTGAGTGA 120
 CCCCAGCCTC CTGCTTACCC CAAGATGCCC CTCCCCACCC TGACCGTGCT AACTGTGTGT 180
 ACATATATAT TCTACATATA TGTATATTAA AACTGCACTG CCATGTCTGC CCTTTTAAA 240

SEQ ID NO:4655

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05520

SEQUENCE DESCRIPTION:

GATCCAAATA GTCAGAAAGA AAGGAAGGAA GTGCTGGTAA GAAGGAAGGG AGGAGCGTAT 60
 CCTAAAGAAC TACTCCCAAC TATACAACTG TTGTTTTCTT CCAATTTTC CTAGGGATTG 120
 CTCATAATTA TCTCCTTTCT CTTCAATAAT TCTACTTACT GACCTGAAAT AAAATTCTC 180
 ATTTGGTTGT CCTCAAGGTG CAGAATATGG ACTTAAGGCT CCTCCAGACA ATTCAAATGT 240
 ATGTAGACA GTTAAGNTAG AGTAAACTC ACCGTTTTGT CCCACTGAAA 290

SEQ ID NO:4656

SEQUENCE LENGTH:355

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05521

SEQUENCE DESCRIPTION:

GATCGACAGG CATCCACAGT TGAGTATCTC CCAGGCATGC TACATTCAA TTGCCCTAAA 60
 GGTCTCCTAC CCAAAATCTC CACGCTGGTC TTNGGTAAA CTAGGCCCTG CTAAGTCTTA 120
 TAACATTCAT ACAGGTTTGG ACCAACAGGG CTTTATTCCA GGANCAAAAT ATCTTATGCC 180
 TTGGGACATT GNCATCAGGA CTAGAGCTGN AGATGAAGGA GACTTAGACA CAAACTCTTG 240
 GCCTGCTCCA AATAAAGCTA TTCCTNGNAA GAGNAGTGCG GTTGTAAATGG NTAAGAGNGN 300
 AGANCGGCGA GATGACATTG NTCGAGCTTN TNNTGGNCTT TGAATATNGA AGTCN 355

SEQ ID NO:4657

SEQUENCE LENGTH:382

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05522

SEQUENCE DESCRIPTION:

GATCCGCAAA CGATTAATTC TGTCAGACAA AGGGCAGCTG GATTGGAAGA AGATGTATTT 60
 CAAACTTGTC CGATGTTACC CAAGGAAAGA GCAGTATGGA GATACCC TTC AGCTCTGCAA 120
 ACACTGTCAC ATCCTTTCTT GGAAGGGCAC TGACCATCCG TGCACTGCCA ATAACCCAGA 180
 GAGCTGCTCC GTTTCAC TTT CACCCNNGGN CTTTATCAAC TTGTTCAAGT TCTGGNATCC 240

CAGCACATGA CAACACTTCA GAAGGGTCCC CCTGCTGACT NGAGAGCTNG GGAATATGGC 300
 ATTTGGACAC TTCATTTGTT AAATTAGTGT ACATTTTAA ACATTGGGTT CGGNNAACTT 360
 TCAGNGGTNA GGTCGGNGNN TN 382

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SEQ ID NO:4658
 SEQUENCE LENGTH:326
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05523
 SEQUENCE DESCRIPTION:

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GATCATTAAA AACTTAAAT ATATTTTATT AGAAAACATT TATCTATGAA TGAATATTTT 60
 CTTGATGCTG GTCTCTGCAC ACATATGCTT GGTTACTTGC ATGCATTCAT TGGTTGTTCA 120
 ATAAGTGAGA TGATTACAGA TAACTTAAATA CTGTATTTNC CTTATATGGA AAACCGTTAT 180
 AGACCCAATA ACAACTAANC CTTTCAAAAG AAANTATTN CTATTATGAN TGTGATTTT 240
 CATACCAAG AAGATGGAGA GTCTAAAATT TGGGNTATGG ATNCTNGATG GNNTTTTAN 300
 TNGGNAAGCC TTCTNCAAG TTTNAN 326

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SEQ ID NO:4659
 SEQUENCE LENGTH:133
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05524
 SEQUENCE DESCRIPTION:

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GATCAGCTTT GCAGTAGATT ATGCTGCATC CTCGTGGCAA AATTCTGTAT TCTTAGTGAT 60
 TGTACAAAC CCCTTTATTG CTGTCTGAGA AAGTGAAAGA TTGTGTATTT CTATTAAC 120
 ATTTACAATC AAA 133

SEQ ID NO:4660
 SEQUENCE LENGTH:264
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05525
 SEQUENCE DESCRIPTION:

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GATCAACATC CGGAGATGGA TTTNCCAAG GCTAAATTCA ACTAGCCCCT GTTTTTTCCT 60
 CCCTGAACTC TTGGGGCTGA GCTGCAACCA CCCAACTTC TTCCCACTC TTCTCTGGGA 120
 CTTGTGGGCC TCAGGGCTTG GGGCAGGCAT GGGACTGGCC CAGGCACACA GGTCCTGGGG 180
 CATCAGGAGA AAGGCTGGGT CTTGGGACCT TGTCTCCCC AGTTGGCCTA CTGTTACACA 240
 TTAACAGAT TTGCCAGNT CAAA 264

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SEQ ID NO:4661
 SEQUENCE LENGTH:319
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05526
 SEQUENCE DESCRIPTION:

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EP 0 679 716 A1

GATCACCTNT TCCCTTCAAT CCTTGTGGCT TCTGGGAATC TTCAGAGCCT GGGTCTGAAA 60
GGTGTTCCT ACATGTCTCA GGGCTGGATG CAAACCTGGC TGGGGACCTG AGCATCAACT 120
CCCATTTAGA ATCAGACATC TCCCTTCCCT GCAAATTGTC TACAACTACC AAATTGCTCC 180
AGGTTTGAGA TGGTATTGCT AAATTTAAAA TTAACAAGN GACCCANCAN CAGCTTTTTA 240
AAGTGTCTNC TATTCATNN GTATTTNNT NAACCTGGC CCCANTTGNT AGAAAAGTCT 300
TTGCGGAAA TGNATTNN 319

SEQ ID NO:4662
SEQUENCE LENGTH:239
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05528

SEQUENCE DESCRIPTION:
GATCAAAACA GTGTGGTGCT GGCAAAACAA GAGACATAAN TCAGNAGAAG AAAGAGTCCA 60
GAATTAGACC CACACACATA TGGACAATTG ATTTTCAAT AAGGGCACCA AAGCCATTCA 120
ATGTATAATA GAGAAGACAG TTTTTCCTAA CAAACAGTAT TGGANCAGTT GNNCANNATC 180
AAAAAGTAAA CTTCANCCCA TACCTCACAC TATATCTAAA ANTTAGCATC AAATGGNTN 239

SEQ ID NO:4663
SEQUENCE LENGTH:68
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05529

SEQUENCE DESCRIPTION:
GATCTATTTA GTCCTACAAA TCAGGAGTGG TGTAGAGACA TCCAAATTTA AAGAAAAAAA 60
AACACAAA 68

SEQ ID NO:4664
SEQUENCE LENGTH:122
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05531

SEQUENCE DESCRIPTION:
GATCGAGTTT TAAATTGATA GGAGGGAACA TGTCTAATT CTNCTGTCCT GAGAAGCATG 60
TAATGTAAAT GTTATATCAT ATGTATATAT ATATNTNCNC TATGTATATA CATATATNTN 120
AN 122

SEQ ID NO:4665
SEQUENCE LENGTH:196
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05532

SEQUENCE DESCRIPTION:
GATCAGGGAC GGGGCTGAGC TGGAGAGTGT GCAGGATTGA TTAATGATGT CTGCCACGGT 60
CAGGCCAACT GCTGTGTTTC TGGGGCCAC AAGCTAAAAA TGGTTGAAA AAAATCAAAA 120

CATTAATATT TGTGACATAT GAGAATGCTA TGAAAGTCAA CTTTGCTATC CATAAATAAA 180
GTTTTATTGA CATAAA 196

5 SEQ ID NO:4666
SEQUENCE LENGTH:316
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS05533
SEQUENCE DESCRIPTION:
GATCAGATTG CTCAACTCCA TTATAATTTG TTTCCAACT AATCTGTTCA GGCAAGATAA 60
AGATATAAAT GTGGATTGTT GCTGAGGTTA AGTCTGGTCA GATTTTNCCA NTTATGCTTG 120
AAAAGTAACC ATATTTCAAT CAAATATATA ATATGTATAT NTCATAATAA TATANGCAAT 180
15 ATTAGTCTCA TTATTAATTC AAAANTCTCA TCTATATTTT ANCACTGTAG AACATTATTA 240
NNTGANTAAN TGACCTATAA NTATTTGGTG CCTGANGAAG TCACTTTGCT ATTANTNATA 300
CGGTGTAGNG TGTGGN 316

20 SEQ ID NO:4667
SEQUENCE LENGTH:168
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05534
25 SEQUENCE DESCRIPTION:
GATCTCAGGG AAGCCTGGGA GTCCCTTCTC ACCCCTCAAC CTCCGGAGTC CAGGAGAACC 60
CGTACCCCCA CAGAGCCTTA AGCAACTACT TCTGTGAAGT ATTTTTTGAC TGTTTCATGG 120
AAAACAAGCC TTGAAATAA ATCTCTATTA AACCGCTTTG TAACCAAA 168

30 SEQ ID NO:4668
SEQUENCE LENGTH:311
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS05535
SEQUENCE DESCRIPTION:
GATCATCCCA TCCTTGACCA CAGGGACAAG AGGGGCCCC TCGCCCCAGC CCCACCCAC 60
ATGGAGCTCA GGGGGAAGCA GGGAGGGGTT CCCAAAAGAG CCCTGCGGAG GCTAGGAGTG 120
40 GTTCTTGATG CTCACCTGAA GCCCCTAGAC GCTGCTAGGA GGGGGGGCCC TCCTGGGCCC 180
NAAATACCN TCCGCTTGCC GCTGCTAGCG NACCCCTGCA GTCCAGCGTG CATCCACCCC 240
ACGNACGTCC CGTGCTGTGT TCCTGGGCCN TGTCCATGGC CTNAATAAAC TCTCTGCTTG 300
GGTGTGACAA A 311

45 SEQ ID NO:4669
SEQUENCE LENGTH:167
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
50 CLONE:HUMGS05536
SEQUENCE DESCRIPTION:

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GATCGCAAGC TGTTGATGCA CAGGCGTCTT GTTGGCAAGC CCAGCTTCAG TTTATGTTAG 60
 ACAATCAGTA CACATGCTGG TGTGTTTTCC AATGGCCAGT NATAAGAAAT TAAATAAGTA 120
 TTTGTGAGAT TTGCTATTTT TTAATAAAGT AATTNTTTTA AATTAAA 167

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SEQ ID NO:4670

SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS05538

SEQUENCE DESCRIPTION:

GATCTCATAC TTGTATAGAG TAATAACAAC AGTTGTACTT CCACCAAAGG CATGTGGCAT 60
 ATTACCAAT GTCATGTATT CTGAACAAAG GCAAAAAATA CAAATTCCTA CCATTAAA 118

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SEQ ID NO:4671

SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS05539

SEQUENCE DESCRIPTION:

GATCCTTCAA ATAGGCCCTG AGATGTGAGG TCTGCTGCTT CACTGGGGCC CGATGACTTT 60
 GGCTGGGGGA GGGGGCCCTAG GGCTCTNCTC ATTGAAAGCT CTGCTTTATA CAGACCCAAG 120
 CATACACACC AGGCCGTCAC TTTGGGTTCT GGCATAAGTT CAGAACAATT CAAGTCCATG 180
 TGTCCCATGG CTGCTCAGAG CCCTGGGTCA AAACCACTCA GCCCAGGGGA GGGGATGAGG 240
 CATGTGCACC CTAGACCCCT CTCCTCTCT CCCNCACCAT AGTGTGCAAT AAAGTGTCTG 300
 TTCTTACCAA A 311

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SEQ ID NO:4672

SEQUENCE LENGTH:338

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS05540

SEQUENCE DESCRIPTION:

GATCTTGTC AAGCTGCACC TCTCTGTGAA CTGGCCATTC CTTTCGGTGC TGCTGTCCTT 60
 TTTGGGGGGG TTCCTGATTT CTGTATACAT GTAGCTTTGC CAGATATGTA CTTAGTAATA 120
 TAAACTGTAT TAATAAAATC CATTTACTGT GTAATACACG AGTTTAAAAA TTAAGAGCGA 180
 TTAGCTGTTC ACTTTGGTAA CAGGTAGTTA AGTGTACAC AAGGTGTTGT TGCAATGGCA 240
 TGACGGTGAC CTGTTGGNGG NACTAAGCCT TACAGCAAGG CATGTGCCGN ACGTGTCTCC 300
 TGGTACTTAG AGCCCTGGGG GCCCCGNTCG GACTCCGN 338

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SEQ ID NO:4673

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

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TOPOLOGY:linear

CLONE:HUMGS05541

SEQUENCE DESCRIPTION:

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GATCTGTTTA CAAGGTTTGT AGATACTTTT TTTGTTCTG TTCATAGATG GGAAGCTTCC 60
 TTATAACTGA TGCAGAGAAA AATTAGTCCT TCAAATACTG CTGTATTTTC AGGAAAN 117

5 SEQ ID NO:4674
 SEQUENCE LENGTH:279
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05544

10 SEQUENCE DESCRIPTION:
 GATCAGTGTT GCTAGTAGCT TGGCAGCTCT TCATAAAAGC ATATTGGGTT GGNAAGGTGT 60
 NTGCNTATTT TTCAAATNAT TTAATAGATG TNTGGTACCA TTTAAAAGTG GTTGTGTCTG 120
 AATTACTGT GGGGATAACA TACACTGTAA TGGGGAAAAA TTACCTAAAA CCAATTTCAA 180
 15 AANGGCTTTC TNTGTATTTT AGTTTAAAAA CCCAGTGCAT GATNCGCCCT CTGGAGATGC 240
 AATAAACNCC TTNGTGCCAA AGGNGATTGC CNGNGGAGN 279

SEQ ID NO:4675
 SEQUENCE LENGTH:137
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05545

20 SEQUENCE DESCRIPTION:
 GATCTGTAAT AAAATAGTAT ACTGGACTGT GCATCAAAGG GATGTAAAAT TACAGTATTC 60
 CAAAGGTGA AGTTCTGCTG TTTTGTATA ATGCCTGATA CACATCTTGA ATAAAGTCTT 120
 AACATTTTNC TTATAAA 137

30 SEQ ID NO:4676
 SEQUENCE LENGTH:259
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05547

35 SEQUENCE DESCRIPTION:
 GATCATAAAA ATAAAAATGT GAATGTCAAC AATAAAAAGC AAGACTATGA AAGGCTCAGA 60
 TTTCTTGCAG TTTAAAATGG TGTCTGAGGT TGTNCTATTT TGGCCAAGTC TGTAAGAAAGC 120
 TGTCAATTGA TTTNATTAT GTAGTTCATC CAGCCCTTGG GCATTGTTAT ACACCAGTAA 180
 40 AGAAGGCTGT ACTCAAGAGG AGGAGCTGAC ACATTTCACT TGGCTGCGTC TTAATAAACA 240
 TGANTGCAAG CATTGGAAG 259

SEQ ID NO:4677
 SEQUENCE LENGTH:261
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05548

50 SEQUENCE DESCRIPTION:
 GATCATCATG ATGAGTTTTG CCTTATGCCT TGAATCTTNA GGTTAATAGT CATAAAATCC 60
 CTGCTTTCTA AATTCGCATT TTTCTGGTG TACCNTTAAT GTGAACNTTT TGGCATTCTT 120

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CTGCAATNTT CTGATTGGAG ATTGCATTTT GACCTAGTCT GTAAGTTTTT CTGTCAGAAG 180
AGGACTTTCA TCAACTTTCA NGGNAAGATT GTTTATTGGC ATACTGTAAA GTTAAGTNAN 240
GCANTTTNAA AGTNGTCTAA A 261

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SEQ ID NO:4678
SEQUENCE LENGTH:183
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05551

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SEQUENCE DESCRIPTION:
GATCCGATTT TACCTTGGAC CCCTGCGTCT TGCCCTGGG AACCCANATG GGGACTGCTC 60
TGAACCTTTG GATGACATNT GTGGCCCCGG AGATGTTCTC AACCCAGGGG TGCCCTTCGT 120
AAATGTTNCT CCATCCTCAC TGTACCAGGA GTGTGTGAAT AAACACAGAC CCCCTCTGTG 180
AAA 183

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SEQ ID NO:4679
SEQUENCE LENGTH:234
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05552

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SEQUENCE DESCRIPTION:
GATCCCAGTG ACGTGGAAGT CATCAGAACC CCACGGTACT TTGAGTACCT CTCTGCACCA 60
AGATAGCTGA CTGNTTTTCT GCTCAGTCAC AATTTTACTT GNAAGCAAGN ATTGTCCTAG 120
NTCCTNTTCC ATTATTCCAA AACGTTTAA GTTCAAAGCA GGGTCTCATT AAAANCCCAA 180
CTACTGGTTG ATATAATTGA GATATTACAA TTTCAGAATA AACATTTGAT TAAA 234

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SEQ ID NO:4680
SEQUENCE LENGTH:316
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05553

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SEQUENCE DESCRIPTION:
GATCAGAATC TTCAAGAATC AGTTAGGTTT CTCCTGCAA GAAATAAAAT GTCAGGCAGT 60
GAATGAATTA TATTTTCAGA AGTAAAGCAA AGAAGCTATA ACATGTTATG TACAGTACAC 120
TCTGAAAAGA AATCTGAAAC AAGTTATTGT AATGATAAAA ATAATGCACA GGCATGGNTA 180
CTTAATATTT NCTANCAGGA NAAGTCATCC CTATTTTCCTT GTNTTACTGC ACTTANTATT 240
ATTNGGTTGA ATTTGTNCAG TATAAGCTCG TNCTTGTGCA AAATTAANTA NATATTNCTC 300
TTACCTNATA NCANAN 316

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SEQ ID NO:4681
SEQUENCE LENGTH:304
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05555
SEQUENCE DESCRIPTION:

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GATCATCCTG GAATCCGACT CTGTCTCAGC TCAAGGGGGT TCNGAGATTT CCTAAGCTAG 60
 CCCTCTCATT TTACAGCTGC AAAACGGAG GCCTGTAAAT TCAGTCATTT TATGAAATCC 120
 TTTGAAATTT TTATTGAGCT CTAATTGTGT GTGAAGTATT ATGGAATGCT TCTGTACTGG 180
 AATGCATAGG TTGAACAAGA CAGAAAGGCC CAGATGGCAG AAGTTCAAGA NCTTTCACCA 240
 ACCCATATAG NGAACCTAGT AATATTAATG ACTAATGTTA ATGGANTCCA TGCTTTGTGA 300
 CGAN 304

SEQ ID NO:4682
 SEQUENCE LENGTH:287
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05556

SEQUENCE DESCRIPTION:
 GATCAAATCG GAGTACTTAG CATATCTATC ATCTCGTGCA TTTATCATTT CTTTGTGGCG 60
 AGAACATTTA AAAATCCTAT TTTCTAGCTA TTTTGTAAATA TACACTACCT TACTGTTGCG 120
 AACCATAGTC ACCCTACTGT GCAATAGAAC ACCTGAACTT ATTCCNCCTA TCTAGTTGTA 180
 ACTTNGTACC CATTGNCCCC CCNTCCCTNC CTTCCACTCT CCCCTCCCCA GNCTCTGGTA 240
 ACCACTGTTC TGTTCCTAT GAGATAAAAC TTTTITGNC TTCCAAA 287

SEQ ID NO:4683
 SEQUENCE LENGTH:298
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05558

SEQUENCE DESCRIPTION:
 GATCTTTTGA AGATTGCTGG AATACTGGTG TCTGTAGAA TGCTTCAGAC TACAGATGTA 60
 ATTAAAGGCT TTTCTTAATA TGTTTAAACC AAAGATGTGG AGCAATCCAA GCCACATATC 120
 TTCTACATCA AATTTTCCA TTTTGGTTAT TTTTATAATC NGGTATTGCA TTTTGCCTTC 180
 CCTGTTTATA CCTCAAATTG ATTCATACCT CAGTTTAATT CAGAGAGGTC AGTTAAGTGA 240
 CGGATTCTGT TGTGGTTTGA ATGCAGTACC AGGNTTCTCT TCGAGCAAAG TAGACCTN 298

SEQ ID NO:4684
 SEQUENCE LENGTH:297
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05559

SEQUENCE DESCRIPTION:
 GATCCATCTT CCTTACACTC CTTCCAAAT AATGTTAATA CTCTGTCTAT CAAATGCTTA 60
 CAGTGTCTC TAGCACATAT AGGGTAAAGT CAAAGCTCAT TAGCAGGGCA TAGGAGGCCC 120
 TTCATGACCA GCCTNACCNG CACCTCTAGC TACATCTCCT ACTGNGNCA CCTCCACATT 180
 TACCCCTCGG CATGCCAACC TGCTTATGGT TACGGGGCAC AGCTTGCTGT TTTGGNTNNT 240
 GTGCCTCCCN TTGTTTGTCT TCCTGNTGNT GAANTNATGN TGGGACCATT CTTGTGN 297

SEQ ID NO:4685
 SEQUENCE LENGTH:120

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05560

SEQUENCE DESCRIPTION:

GATCAGATTC ACTGTTTCAT CATATTTATT GTAATATATT TTTTGTGTTG TAAATATGTT 60
ACAACAAAAT GTGATTGGTC TAAATATTT GTAATGTATA TTAAAAGGTT CAAAAATAAA 120

SEQ ID NO:4686

SEQUENCE LENGTH:53

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05561

SEQUENCE DESCRIPTION:

GATCAGAGGA GTTCAGGGAG ACATACATAA AAATGTTAAT CACGGTTTTC AAA 53

SEQ ID NO:4687

SEQUENCE LENGTH:363

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05562

SEQUENCE DESCRIPTION:

GATCGCCAAG TGCAGGCACG GCATCGCATC CCCAGGTGTC ATCCTGTGAC CCAGGAGGGG 60
AAGATGACAC ACCCAATTTA GGTAATGCTG CACTTCTNGT TATAATTGGT TATTGGAAAA 120
TGTGCCTTTA TTATCAGAAC AGTGGTGTGC GCATTTCTGA TTATGGAGCT AACTTTTGGA 180
TATCTGACTT AGATACTAAA AACATTTGGG TGTTCAGTT TTGCACTTGT AGATACAACT 240
TAAAAGCATG AAACCTGGTGA TTAAATTAGA TGTTCCTAT AAAATGCACC TTGTTACATT 300
TCTGTGAAAG GGGTCTTACC AGCGTGAAT AACNTGGCTC AAGGGTTTGA GGGGANCANC 360
NGN 363

SEQ ID NO:4688

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05563

SEQUENCE DESCRIPTION:

GATCCACGTG TACTGGCACC TCAGAAGACC AAATCATGGN CTGTACAAGT CTCTATACAA 60
TGTCTTTATC CCTGTGGGCA GNANGCAATG ATGATAATGN CAANCAGGN 109

SEQ ID NO:4689

SEQUENCE LENGTH:369

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05564

SEQUENCE DESCRIPTION:

GATCAGAAAAG CATTCACTCC AGTCAGAATT CAAGGTGGGA AAAGTAGGTG TATTTCTGAN 60

5 CCATTG GGA AGGAAAATCA TTTTCTGAA CANCACTACC TGCATTTCTG TTTCTGCAGA 120
 CAATCAAAAA ACAAAACANT AAAANTAAGT AAGTGAANGA AAGGCCANTT AGCATTATTC 180
 ATTTGCCTTA GGTTCACAGG GTCACAGATT CATTAGCTTA ATTACATCCT CATTTTGGNT 240
 GCCAAAGAAT GGAGCAAGAG CANTCAGTAT TGCTANCTGG CTCTTGCTTC TTCTTCCTGG 300
 GTTTGTTTTG GTTTTNCAGA GAAACAGGGA AGNGAGGGCA TTNGCENNAGT ATAATTGGTN 360
 TATAGGAGN 369

10 SEQ ID NO:4690
 SEQUENCE LENGTH:70
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05565
 15 SEQUENCE DESCRIPTION:
 GATCATAAAT GTACTTGCTG AATTCATCA TTTTAAACA GCCAATAAAG TTTGATAATT 60
 CATCTCCAAA 70

20 SEQ ID NO:4691
 SEQUENCE LENGTH:293
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05566
 25 SEQUENCE DESCRIPTION:
 GATCCTCAAG GCCTTGCTCT NCCCCGTGGA GACGCTTGCT CGGATGAGCT CAGGAAACAG 60
 TACCGGCTGC GTGGCAGGTC TGGGTGTTGT GTGCGAGGAC GTGGCCTTG CACACCGCTG 120
 TGTTCACAGA GGTCTTAGG AGATATTTT TTTTGTCTTA GGGGGACTGT NTTAAGTTCA 180
 30 GACAAATCAN GCTGGGTGTG GAGAGAGTCT GAAATACGTC AGTGAAGTAA GTAGCAGTGA 240
 GCGATTGTGA ATTTGNANTN TAAATGGAAA ACCGGGTTTT TACCGGNGTT TTN 293

35 SEQ ID NO:4692
 SEQUENCE LENGTH:251
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05567
 SEQUENCE DESCRIPTION:
 40 GATCAAACTC TTCATTGAAG TACTCATNAG GCGTGATGGC TGTGGGGTTG TTTGCAGTAG 60
 CACATTNCGT GGTGAGGTCC TGCTGAGCCA GNACTCAGGA GAGTCAGAAA TGCCAAANN 120
 TGTTCAACAAG TGAAGGCCTG TGGCACTCAG TGTCTGAGGT GGACGTGTTA ACCAGCTAAA 180
 GACCGGGAAG TTCTATTCAC TAACTTTTTT GCATGGAACA AGAAAACTCTA TGAGGATATC 240
 45 ACCAAACTAA A 251

50 SEQ ID NO:4693
 SEQUENCE LENGTH:97
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05568
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SEQUENCE DESCRIPTION:

GATCCATCTT GCTTTTGCCT TATATAAAGA CTACAGTTAT GGAAGTNTGG AAAACTGTGG 60
 CTTCTCAATA AATATTCAGA TGTCTAAGA NTATAAA 97

SEQ ID NO:4694

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05570

SEQUENCE DESCRIPTION:

GATCTCACAA AGTACAAAAC GAATGCCTTT CTTTCTTGT TTATAATGGT CACTCACTGT 60
 GTTTGGTTAC TGTCAAGAAA TCAATAAATG TGTTAACAA GTTAAA 106

SEQ ID NO:4695

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05571

SEQUENCE DESCRIPTION:

GATCAGTNGA TATTAAGATG AGATTACAAA TTTTNTTAAG TTCAGCCATT ATTACTTTTG 60
 GTATCCCAGA ACATGACAAA TTATGAATAA AACAAGTATA CATAAA 106

SEQ ID NO:4696

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05572

SEQUENCE DESCRIPTION:

GATCCATAAA ATTTTATTAA TCAAGATATC ATATTAAAGT ATTATTATAT TAATTATGA 60
 CACCAAAATTT TTAAACCAAT TTTATGTTTT TCCTTATGTA TCATTATAAA CCCTATTGCA 120
 TTTTATAAGT AATANANTAT TTNAGAAA 149

SEQ ID NO:4697

SEQUENCE LENGTH:356

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05573

SEQUENCE DESCRIPTION:

GATCGCGACG GCTGGTTTGC ATCGCCAGCT TCTATATATT ACGGCCTTTT TTTTGCTGG 60
 ATATTATCTT GTAAAACGTG AAGACTACCT GTATGCTGTG AGGGACCGTG AAATGTTTGG 120
 ATATATGAAA TTACATCCAG AGGATTTTCC TGANGAAGAT AAGAAAACAT ATGGTGAAAT 180
 TTTTGAAAAA TNCCATCCAA TACGTTGAAG TCTTCAAAAT GCTTGCTCCA GTTTCCTGA 240
 TACCTGCTGT TTCTGAATTT GNTGGGGCAT GTTCTTATG GCANTTGGAG GCTNATTGNT 300
 AATNTGTATG TTGGCACCTT GTNATAAAAA TACGGGGCCA TGNNANAAAA AAAAAA 356

SEQ ID NO:4698

SEQUENCE LENGTH:190

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05574

SEQUENCE DESCRIPTION:

GATCCACCTG CTTTGGCCTC CCAAATGTTG TGTCTTTTA AAGTATCTAC AGTAACCTTG 60
 TATCAACTTA GTTTGTCAGT CTATTAATAC TAAATTTAGC TCCTTCAAAG CAGTTGGAAC 120
 TATGTGCTAC ATAAATTCA GTTTCACCCA AGGGAAGAAG TGAAATTAGT GAATAGACAG 180
 TTACAGCAAA 190

SEQ ID NO:4699

SEQUENCE LENGTH:81

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05575

SEQUENCE DESCRIPTION:

GATCCGNTCC CAGACGGCCT TGGACTGCTT GCATTTCCTC GGAGAAAAAG GGGTTAATAA 60
 ATGGGCCATC CTTTCCTGAA A 81

SEQ ID NO:4700

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05576

SEQUENCE DESCRIPTION:

GATCACTGTG GGGTCAAGAA TGTCTTACAT GTTTTATTCA TCATTCTTGA NGGAAGAAAT 60
 AATTCAAACC TTGGAATTAA AAAGTCAAA 89

SEQ ID NO:4701

SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05577

SEQUENCE DESCRIPTION:

GATCTTGGCA AGAAACCCTA ATCTCCCTCC AGAAACAGTG GACTCTCTAA AAAATATCCT 60
 GACTTCTAAT AACATTGATG TNANGAAAAT GACGGTCACA GACCAGGTGA ACTGCCCCAA 120
 GCTCTCGTAA CCAGGTTCTA CAGGGAGGCT GCNNNNACTC CATGTTACTT CTGCTTCGCT 180
 TTCCCCTACC CCACCCNCCG GCATAANGNC ANACCAATCA ACCACGACAA AGGNAGTTGA 240
 CCTAAACATG TAACCATGCC CTACCCTGTT ACCTTGNTAG CTGCAAAGTA AACTTGTTNGC 300
 TGNCTGCAA A 311

SEQ ID NO:4702

SEQUENCE LENGTH:94

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05578

SEQUENCE DESCRIPTION:

5 GATCTCTCTT GCACGGGCCT TGCCAAGGCC CAGGAGGGAC TTGGGCAGTA TGTTCATGTG 60
 GTCATATGTT TTTGTAAAA ATTGTGAAAG TAAA 94

SEQ ID NO:4703

SEQUENCE LENGTH:248

10 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05579

SEQUENCE DESCRIPTION:

15 GATCCGAATC CGACTGTGGG GGGCGGGCTG GGAGGTGGGA GCCGCGTCTC AGGCCCCGGCC 60
 GTTATCAAGG CCCCTCCGCC CCCGAACCCT GGGGAGCTGG ACCAGGAGGT GGAGGCTCAG 120
 GGGACCCCAT GGGGACAGGC AGAGCTGGTC TCCTCCAGC AGACGGAGCC AGGACGGGCA 180
 CAAGAGTCTT GGAGGTTTGC GTGTTTCTGC TAGAATTAAA AAGTTAAATT TAAAAATGAA 240
 20 AATGNAAA 248

SEQ ID NO:4704

SEQUENCE LENGTH:66

SEQUENCE TYPE:nucleic acid

25 TOPOLOGY:linear

CLONE:HUMGS05580

SEQUENCE DESCRIPTION:

30 GATCAGCAAA GTGAGACAAA AGAAGATACT TCCCCAAAGA AGAAAAAGAA AAAATTGAGG 60
 CAGAAA 66

SEQ ID NO:4705

SEQUENCE LENGTH:65

SEQUENCE TYPE:nucleic acid

35 TOPOLOGY:linear

CLONE:HUMGS05581

SEQUENCE DESCRIPTION:

40 GATCGGGTCT CGGAAGGGAA GTAGCCATCA CACCATTAAA AAGCCTGTGG ACCTTTAAAG 60
 GNAAG 65

SEQ ID NO:4706

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

45 TOPOLOGY:linear

CLONE:HUMGS05582

SEQUENCE DESCRIPTION:

50 GATCTTCTTA GGACATCTTT TTTAAAAAGC TGTTTAGTAT CATTTTGTGT ATATTGTTGA 60
 AATGCTTTT CATCAATAGC AGTCANCAIT TTATCCTTTC TTTTATATT CATAATGTTA 120
 TTTAAGTGTC ATTGATGTAC TGTATTGACT TGGGGTTTGC TTATTTGTTA CTTAACATGT 180

55

GTACATGCAT GAAAGCATTT TTNGTTGTTC CCTGATAGTT ACATTTCAAC CTTGGGATTT 240
 TNCCAAATNA CTTAAGANGT TTAATGTCAG TNAAAGATTT TTTTACCCTC NTTTTGGGAA 300
 CATCAATN 308

SEQ ID NO:4707

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05583

SEQUENCE DESCRIPTION:

GATCCGGAAG ACCACGGCCA GCCAGGTGTA CGAGACATTG CTCACCTACA GTGACGTCGT 60
 GGGCGCGGAT GTGCTGGACG AGGTGGTGAC TGTGCTCAGT GACACTGCGT GGGACGCAGA 120
 GCTTGCACTG GTGAGAGAGC AGCGCAACCG TCTGTGTGAC CTTCTGGGCG TACCCAGGCC 180
 CCAGCTGGTG CCCACGCCTG GTGCNTGCTG AAGCCAGTCC TTGGAGCCCA TANCTACCCC 240
 CTGCCTGGTG AGGATGTCTT GTTTCCTGAG GGTAGGCCCG TTGTGGAAAA GCCTCANNAC 300
 NAGTGNTGCC TNNAGGCTGN GAN 323

SEQ ID NO:4708

SEQUENCE LENGTH:302

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05585

SEQUENCE DESCRIPTION:

GATCTTCCTT TGAACACAGG CACATTTGGC CCCTTCTCAG TGAAGTCACT GTGGAACCTCT 60
 TCTTAAGAAA ATATTGAAAA CAGCTTAATG CTTTCATATA GTGACCGACA TTTAGTTGAA 120
 AACTACTGCT GCATAGCAAA TATTGTGACT CTTTATGTGT CCACAGGAGC TCTTGTGTGG 180
 GTTTAAAGCT ATGAAGTGTA TTCACATTGT GAAGTTTAA TTATCTTTAT TGAAATTAAT 240
 TGTGTAAAAA TGGTATGTGC TCTATTAGGT ATTCAGTTTG TATGTGAATT CTATAAAGAA 300
 TN 302

SEQ ID NO:4709

SEQUENCE LENGTH:302

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05586

SEQUENCE DESCRIPTION:

GATCCCTCTC AGTACTGGG AGCTGCTTTG TGCCTTGGAA GCCTCAAGCT GAAATGGATG 60
 TCAGCCTCAA GTTAACTCC AAGAGGGTTC ACCTTGTTTC TTTGAACAAA ATGTGCTGCC 120
 TGTGCTTCC CTTTGCCAGG AGTGGTGTTT CCTTTTCCAC AGGTCTGGAC CACAGTGTCT 180
 CTAGCTCCCG CTCCTGGATA CTTGGTTACT GTGTGTTTCG GGAAGGAGG ATNCACAACA 240
 TGAATATNCA CTAAGCTGTA ACAGGGGCCT GCTGCANCTA TAGTATTTCC TGAAAAAGTA 300
 TN 302

SEQ ID NO:4710

SEQUENCE LENGTH:161

EP 0 679 716 A1

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05587

SEQUENCE DESCRIPTION:

GATCTTGCCT CTTTCCTCCT TCATGAAAGC AGCACACATT GTGTTAACTT ATGTCTCTTG 60
TTAAATNAGC TTAATGTCTT TGTGTTTGT CCAAACTGT ATTGNNNNA TATTGTTTAA 120
TGCAAATNAA GGAATGCAAT AAAGAGTAAA TATACTTGAA A 161

SEQ ID NO:4711

SEQUENCE LENGTH:120

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05588

SEQUENCE DESCRIPTION:

GATCAGAGCG TGGGAGGAGG TGGGGGTGGA CGTCCATCCG GTGAACAGTG AAGGCGTTTG 60
TGAGGTCTTT CTGGTCCCAG CATGAAATAA AGCCTTGGCC TGGGGGCCGC TTCATTCAA 120

SEQ ID NO:4712

SEQUENCE LENGTH:297

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05589

SEQUENCE DESCRIPTION:

GATCTGGCAG TACCCAGCCC TTGTGTGTGT GCGTTANTCA GCACCTGCCC ACACTGCGAG 60
CCCCCGTAGG ATGTGCCTTG TCCTTCCCTG TTTCAGCACT TAACACACTA CCTGGTACAG 120
AGTATGTAGT GGGCATCTGT TGAATGAATG CTTTCCCAG TAGCAGTGTA TTCATACAAT 180
ATTAATATAA TTGTCCCCTG GCTTACAGAT ANAAATGAAA GCATCAAGTG CCCAGTTGAG 240
TGAGACCCAG GTGTTCTTCC TNCACCCCTT AGTGGTTCCC CTGGGGGCAG NTCTTTN 297

SEQ ID NO:4713

SEQUENCE LENGTH:67

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05590

SEQUENCE DESCRIPTION:

GATCTCTGCG CTAGGTCGTT TACCGCTATT TATTTTATG GGGAAAATAA AACTCTCAA 60
AATGAAA 67

SEQ ID NO:4714

SEQUENCE LENGTH:50

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05591

SEQUENCE DESCRIPTION:

GATCACTAGA TGATTCTAAC ATCGAAATAA ACCTCTTTT ATATGGCAA 50

SEQ ID NO:4715

SEQUENCE LENGTH:233

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05593

SEQUENCE DESCRIPTION:

GATCTGGTGC GTGTGGCCCT GTGGGAGTCC ACTTTCCTCT CTCTCTCTCT CTCTGTNCCA 60
 AGTGTGTGTG CAATGTTCCG TTCATCTGAG GAGTCCAAAA TATCGAGTGA ATTCAAAATC 120
 ATTTTNTTT TCCTCCTTNT CAATGTGATG GAATGAACAA AAAGGAAAAA ATTCAAAAAA 180
 CCCAGTTTGT TTTAAAAATA AATAAATANA GCAATGTGC CANTTAGCGT AAA 233

SEQ ID NO:4716

SEQUENCE LENGTH:282

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05595

SEQUENCE DESCRIPTION:

GATCTTGCCCT TGAGGAAGAC CCAGGCCATG TTCCCAAAGG NCAGCGGGGG CCCTGGATTG 60
 TAATGCAGCC TCGGGACAGG GCTGAGGCCT GCGGGGGAAG ACCTATACCC CACGACTGGG 120
 CCTGGNTTCA CCTCACCCTA ATCCCCCGGG AGGAGCTGAC TGATGCAAAA AGCTGAGGNN 180
 GCCTGCTGGG NNGTGGCTGT TTTNATGNCC CAGCCCCGNN AAGTTGGGGA GTGTTTGTGG 240
 GGGTNCAGAG CCTNCCCCA GNCAGGAGAG AACCTTCCTN TN 282

SEQ ID NO:4717

SEQUENCE LENGTH:80

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05598

SEQUENCE DESCRIPTION:

GATCTAGGAC TAATTCAAGG GTCTAGATTT ACCTCCAAAC TTTGTTTATC TACAAAAAAT 60
 AAAACTCTAT CTTCTTTAAA 80

SEQ ID NO:4718

SEQUENCE LENGTH:204

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05599

SEQUENCE DESCRIPTION:

GATCCTTCCC CTCTCAGACA CCCCTCTTTC AGCTTAGAAT TTGGGGAACC TATAGAGAAG 60
 TCACAGAATC CCATGAAAGG GAATGGGGCA GGAGCCAGGG GTGTTTTTNC CCAGTGCAGG 120
 GTTGTGTCTT TGTGTCTCTG TCTCTGTGAC TGTAATCCT GCCCTGCCCC ACTCCCAATA 180
 AAAGCTTTGG TGTATAGGCT CAAA 204

SEQ ID NO:4719

SEQUENCE LENGTH:83

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05600

SEQUENCE DESCRIPTION:

GATCAGTTTG TTTCTTTCTG TGCTGGTAAC AATAAGCGTC GCACAGACAT GGTTTCAGGT 60
AANTAAATCT ATTCTATGAT AAA 83

SEQ ID NO:4720

SEQUENCE LENGTH:289

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05601

SEQUENCE DESCRIPTION:

GATCTCTGGA TTGTGTTATG TCAGTGTGG TAGGTTAGGA ACTAGATTTC CCAGAATCCA 60
TTCCATTGT NATTCATGA TACAATTGAC CAGTAACCTA TCTTACATGA GATTCGGAAG 120
TAAGTTAAGA AGGCATTAGT CATGGTTTGG AAGCACCATA CAGGGAGACA GCTGTGTGAA 180
TACAGGCTGT ATGGACACTT GCTTCCATCC CATTNNCTG CTTCTTTGGG TTGCCAATCA 240
AGTGTATCCT CAAAACGACT TGACTTTAAT TTTCTCGGAG GTGATAGTN 289

SEQ ID NO:4721

SEQUENCE LENGTH:235

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05602

SEQUENCE DESCRIPTION:

GATCAAGTCT TACATGCCCA TTCAGCTTCT AGGCCCCCT CACCTCCCTG CCCTCATTCA 60
CAAGTGGCCC TGAGACACGT GAACACCTCC CTNCTATGCA TCACAAACCT TCTCCACCGA 120
GCTTTGGTGC TTTNGCCTCT GGNACACCTA ACTAGCATTG GCAGAGGAGA GTCTACACTC 180
TNTTCTNAT TCAGGGTNGA TGCTTTAAGA AATNCTGNCT CTTGTGNANG CAGAN 235

SEQ ID NO:4722

SEQUENCE LENGTH:276

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05603

SEQUENCE DESCRIPTION:

GATCGTCAGC ATCATCGGAG GCATCAGTTC CTTCTTCATC TTCATCTTCC CAGGTTTGTG 60
CCTCATCTGT GCAATGGGTG TCGAGCCTAT AGGACCAAGA GTCAAGTGCT GCCTGGAGGT 120
CTGGGGAGTG GTCTCTGTGC TGGTCGGCAC CTTNATCTTT GGGCAGAGCA CGCGGCAGG 180
GTCTGGGAGA TGTCTGATG GGCAGCCAGT GCCGGGCAGG AAGGGGCCCT CCGGGGGCTG 240
ACCTACGTG GCTGCTGTAT GCAGNNGGGA GANCAN 276

SEQ ID NO:4723

SEQUENCE LENGTH:278

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05604

SEQUENCE DESCRIPTION:

GATCAAGGTC ATAGAAAGTG AAGATTATGG CCAACAGTTA GAAATCGTAT GTCTGATTGA 60
 CCCGGGCTGC TTCCGAGAAA TTGATGAGCT AATAAAAAAG GAACTAAAG GCAAAGGTTC 120
 TTTGGAAGTA CTCAATCTGA AAGATGTAGA AGAAGGAGAT GAGAAATTTG AATGACACCC 180
 ATCAATCTCT TCACCTCTAA AACACTAAAG TGTTCCTGTT TCCGACGGCA CTGTTTCATG 240
 TCTGTGGTCT GCCAAATACT TGCTTAANCT ATTTGGAN 278

SEQ ID NO:4724

SEQUENCE LENGTH:280

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05606

SEQUENCE DESCRIPTION:

GATCTGGAAT GCNACCGGAG CACTTGCTCT GAGGAATCCC AGGGTGACTC TGTCGGGGAA 60
 GAATCCGGTC ACAGCCTCCC CTCAGAGACA GGCCTCANTT CGAGGGCAGC CCATTATCTG 120
 TCGCAGCATC TGCCATGTCC CTNAGACTGC GGGAGGCAGG GNATGCATGG GTGTCCCAT 180
 CTGTCCCTGG TGAGAAGCAA GGCTAGCTCT GCCTTCCACA TGCTTNTNAG GATGCCAAGA 240
 GGCCTAGGAA CCCAGNAACC CCCTTGNGAG GAGCTGTGNN 280

SEQ ID NO:4725

SEQUENCE LENGTH:253

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05607

SEQUENCE DESCRIPTION:

GATCTGCATT CACCTTAGGG CTTAGCCTCT MATTTTATGA ATTTTCAGGC TGTGATTNGT 60
 GTTGGATGGC TAAGNTCTAA GATAATGCAA ATAGCCCCAA TCTTTAAATA TAGCGGTGCT 120
 AAGTTGAACA NGTAACACAN TACAGAAAAT GCTGATATGA ATACTTAGTA ATAATACAAA 180
 AGTTCCTGCT AAATTATATA TGTGTATCAC TGCCTGNCNN GANACCCAC TTNNCTTTTC 240
 TAATCCAGCN CAN 253

SEQ ID NO:4726

SEQUENCE LENGTH:301

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05608

SEQUENCE DESCRIPTION:

GATCCAGATA GCCTAGGGTG AGGGTGACAG AGGGACAGTG GGCTATGCCA CTAGGCCCTG 60
 GTCTGGCTTT GGAAAGACCT NTGAGGGGAA ACCTTCACCC AGCAGCCATG CCCCCTCTG 120
 CTGAGGCCAG AGGAAGGGAG GCCTGAGGGG CAGATTNGTT CATGCCCTGGG GTGGAGGCTA 180
 AGCCTGGACA CAGTCAGGGC GGGGCTGGCC AGCTGTGCGA GAACACAAGC CACGCTGCN 240
 ATGGTGCTGC ACCCCTGGGT GTCCCTGCCT TGGCCCTGCT CTGGTCACTT CAAACATNGT 300

N

301

SEQ ID NO:4727

SEQUENCE LENGTH:295

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05610

SEQUENCE DESCRIPTION:

GATCATAAAA CAATAAAAGT AGTTTCTAA TGTTGCTCAT AAAGTGGGAC TGAATATCAT 60
 TTCAAATCCA GGAGACAGTC CAAAAATGGT TATTGAGCAN TGCCACATA TTGAATAAA 120
 AATTTTNATT TTCAGTCTGT GTTTTGGGAA AACAGCATT CATTGCATAG GTGGATAAGT 180
 NCTAGAATAT TGGCTAANCA TATNGTCATT TGCTATAATG CATATGCATT NCAGAAAGTTT 240
 TCTNGCTCCT GANGTATNAT GGGGGGTTTT CTAGCTCCCN TATNGCNAAA ANTTN 295

SEQ ID NO:4728

SEQUENCE LENGTH:99

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05612

SEQUENCE DESCRIPTION:

GATCACTTGA GCCAGAGGTT AAGTCTGCAG TGAGCTGTGN TTGTACCACT GCTCTCCAGC 60
 ATGNGCAACA GAGCCGGACC CTGTCTCACC AAAGNCAAA 99

SEQ ID NO:4729

SEQUENCE LENGTH:329

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05613

SEQUENCE DESCRIPTION:

GATCCATTGT CGGGAGCTTG TGGACATCA CCTTTCTACT CTGCAGTCTT CCCTGCCTCT 60
 NAATTCCGTT TATGTCTACC GTCCCCTCAA GCACACCCTG GTGACCTGTG ACAAAGGAGT 120
 GTTCAGATTA CATCCCTCCT CTGTCCAGG CCCAGACTTC TCCAAGGACA ACAGCAAGCC 180
 AGAAGTGCCA GTCAGAGGTT NAGTAGCCTT TTACCATCAT CTCCAGNTG CCAGTGGGTG 240
 CAAGCAGACC TCTACTAAAC GNAAAGTAGA GGGAAATGNN AGTGGATGAC TTNTGTGATG 300
 GANTCAAACG GCTCTATAAT GGANGGTTN 329

SEQ ID NO:4730

SEQUENCE LENGTH:140

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05614

SEQUENCE DESCRIPTION:

GATCCTGCCC TTCTCTGGGT NGGTGGGNGG TATAAGCACT GCCACCAGAA CTGTTGGGTG 60
 CTAGCTTCAA AGCCCAACAC AAGAAATACT ACCAATTATG AAATTACAAC AACAANTNTA 120
 AATGACATAA TTTTTTGAAA 140

SEQ ID NO:4731

SEQUENCE LENGTH:190

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05615

SEQUENCE DESCRIPTION:

GATCCATAGG ACTACCGCAG CCCGGACTCA CCAACTTGCC ACATGTTCTA GGTTTCAGCA 60
 ACAAGACTGC CAGGTGGTTG GGTTCGCTT TTAGCCTGGA CCAAAGGGAA GTGAGGCCCA 120
 AGGAGCTTAC CCAAGCTGTG GCAGCCGTCC CAGGCCACCC CCATGGAAGC AATAAAGCTC 180
 TTCCCTGAAA 190

SEQ ID NO:4732

SEQUENCE LENGTH:159

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05616

SEQUENCE DESCRIPTION:

GATCCCAGCC AGGAAGGCTG GGGGCCCTAC TGTTCGTCCC CTCTGGGCTG GGGTGGGGGN 60
 AGGGAGGAGG TTCCGTCAGC AGCTGGCAGT AGCCCTCCTC TCTGGCTGCC CCACTGGCCA 120
 CATCTCTGGC CTGCTAGATT AAAGCTGTAA AGACATAAA 159

SEQ ID NO:4733

SEQUENCE LENGTH:295

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05618

SEQUENCE DESCRIPTION:

GATCACAGAC AAGCTGGGCC TGCATTCCCT TCGTCACCGT AACTGGTACA TTCAGGCCAN 60
 CTGTGCCACC AGCGGGGACG GGCTGTACGA AGGCCTGGAC TGGCTGGCCA ATCAGCTCAA 120
 AAACAAGAAG TGAAAGCCAG ACAGCCCTAA CAAAGCACCC CACCCACCCC TGACATACCT 180
 ACTGTNACCC TGCCCCAGTC CTACCCCTTC CTCTCCATGC AAGTNTGGCC AGGGCCCTGG 240
 GTATCATGTC CACATGCCCA GCAAGAGCCT TGCCTNCCNT TGCCTGCNCT GCTTN 295

SEQ ID NO:4734

SEQUENCE LENGTH:295

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05619

SEQUENCE DESCRIPTION:

GATCCACCCA CCTNGGCCTC CCAAAGTGCT AGTATTATGG GCGTGAACCA CCATGCCCAG 60
 CCGAAAAGCT TTTGAGGGGC TGACTTCAAT CCATGTAGGA AAGTAAATG GAAGGAAATT 120
 GGGTGCAATTT CTAGGACTTT NCTAACATAT GTCTATAATA TAGTGTTTAG GTTCTTTTTT 180
 TTTTCAGGAN TNCATTTGGA AATTCAAANC ANTTGGCAAN CTTNGTATTA ATGTGTTAGG 240
 TGCAGNGGN CATTGGTATT CTGGGCACCT TCCTAATATG GCTTTACAAT CTNNN 295

SEQ ID NO:4735

SEQUENCE LENGTH:259

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05621

SEQUENCE DESCRIPTION:

GATCTCAGCA ACAGCTGGGT AATAAGACTA GCATAGCTCA AACTATCCTG CCAAACGCTC 60
TCATCTGATT TTNCCTCCCT TCTCCCCAA CCTCCAATCA CCCTGAGTCA CCTGTAAATN 120
CATTGTNAT TCAAAGCGGA ATAACANGTT GTCCTAGCA NNNCCGCTGA GCGCTTTATA 180
ATTTNTGGT GTATTTTGT NAGTAGGTAG CAGAGGCGGA NGTATTTTN GGTGTAATTC 240
TTGANATTTT CTGACAGGN 259

SEQ ID NO:4736

SEQUENCE LENGTH:232

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05622

SEQUENCE DESCRIPTION:

GATCACTGCA TGTTATGATG GCTTGTAAGT GCGTTGTAA GACTTTTNT TCAGTGTTTG 60
TNTCCAGTA TTTGAACCTA ATTTAAAGAA AAAGACGTTT CCAAGTTGTA TTTATTAAT 120
GTNTTTNCC TTACCTTTTG TNCTGCTACT TTNCTAATCT CATTAGCTTA GCTGTGTTTG 180
TNCATAGGTT ATATNTGGTA ATAAATNTAT AGAGTGTTNG TTGTCATCGA AA 232

SEQ ID NO:4737

SEQUENCE LENGTH:138

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05623

SEQUENCE DESCRIPTION:

GATCTGTAAG TTTATTTGCT CAATGTACGA CAGCTACATA ATGACTCACA TTCATGATAT 60
TCCATCACTG AGGAAACTGC TAAAGATGGT CCGTGTGTGA AATAATTCCT TAGAGAAACA 120
CGGAGCTGGA AAAATAAA 138

SEQ ID NO:4738

SEQUENCE LENGTH:135

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05624

SEQUENCE DESCRIPTION:

GATCCAACCTG GACAACGTGT GGGATGGACC TGGAAACAAG CACCTCCCCA AACACATCAC 60
CACTCCCTAG GCGGGGCCT GTGCATGCTC TCGCATGACA TCTCCATGCT GGTTCCTGCA 120
TAGCATAAAT GGAAA 135

SEQ ID NO:4739

SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05625

SEQUENCE DESCRIPTION:

GATCGATGTT AAACGTCACA GCAGTACTTT GCTCAATAAA GGTCATATTG GAAACATAGT 60
CAAA 64

SEQ ID NO:4740

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05627

SEQUENCE DESCRIPTION:

GATCTGTGGT AGGGTATTGA GGGATGAGGG AGAAAAACGA CCTAATTCAN GTAGGACTNG 60
CAACGGCTCC CACCCTCCCT GGGGACANGG NTTAATAAAA ATTGACATCA CAAGAAA 117

SEQ ID NO:4741

SEQUENCE LENGTH:244

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05628

SEQUENCE DESCRIPTION:

GATCAGAAGG GCTGCGTGTA GCACCCTTAT GGTCTTGCAG AACACACCAA GAAACCCGAC 60
GGCTTCCATA TTTNCTGACC CTACAAACAG GTGCCTAATA CTGATGTGGA GAAAGCTCAA 120
GAGGGAATCA TCTGGCCTGA GCCTACCATG AGGCTGTTTG TGGTNCTGGC AGAAAAGCAA 180
CAACTCGCTC CCCTTCCCAT GTATCAGTGA AAACCATTAT GCAAATAAAG AGCTGGGCCC 240
CAAA 244

SEQ ID NO:4742

SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05629

SEQUENCE DESCRIPTION:

GATCTTTTTT CCTCCTTCTG TTTATNTTTT TGTTTGTTT ATTTATAGTC TGATTAAAA 60
CAATCAGATT CAAGTTGGTT AATTTAGTT ATGTAACAAC CTGACATGAT GGNGGAAAAC 120
AACCCTTAAA GGGATTGTNT CTATGGTTTG ATCACTTAG AAATTTTATT TNCTTATAAC 180
TTAAGTGCAA TNGAANGNGT TTTNCAAA 209

SEQ ID NO:4743

SEQUENCE LENGTH:265

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05630

SEQUENCE DESCRIPTION:

GATCATATAC TGTATATATA AAANNNTGA GATGGTAGAA ACATGTATGA NTGTACTAAG 60
 TAGTATTCCA CTGTACTCAT TCATAAGGTA GGTITTCTTA CAAAACTCAC ACCAGGTACT 120
 TAAAGATGTG CTCTGCTTTT TTCCAACCTAC GGAGTGTAC TGCTTTCTAG GTCAGTCCCT 180
 GCAGACTCTT CTCAACTCTT TCCCTATAGG AACTTACTC CGCGTCCTGC CCCCACCTCC 240
 TAAATAAATA ANGGAATCGG CGAAA 265

SEQ ID NO:4744

SEQUENCE LENGTH:177

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05631

SEQUENCE DESCRIPTION:

GATCCCTAAC ATACTGTACT ACTTGCTTNT ACAATGTGTT AGCAGAAACC AGTGGGTAT 60
 AATGTAGAAT GATGTGCTTT CTGCCCAAGT GGTAATTCAT CTNGGTTTGC TATGTTAAAA 120
 CTGTAAATAC AACAGAACAT TAATAATAT CTCTGGTGTA GCACCTTTTA CTGTAAA 177

SEQ ID NO:4745

SEQUENCE LENGTH:377

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05632

SEQUENCE DESCRIPTION:

GATCAGCCGA AGAAAGCAGA AGCTCTGGAG GCTGCCATCG AGAACCTCAA TNAAGCCAAG 60
 AACTATTTTG CAAAGNTTGA CTGCAAAGAG CGCATCAGGG NCGTCGTTA CTTCCAGGCC 120
 AGACTCTACC ATACCCTGGG GAAGACCCAG GAGAGGAACC GGTGTGCGAT GCTCTCCGG 180
 CAGCTGCATC AGGAGCTGCC CTCTCATGGG GTACCTTGA TAAACCATCT CTAGAGAGGA 240
 CATCCCTGCT GGGCTGCTGT GCAGAGTATA AGATTTTGA CTTGTTCATG TCCCCTCTCT 300
 CCCTATAAGG GGTGTATTTG TGACACCCTA TCTNGTCANT AAACAGCATT TCTGATTAAA 360
 AANAANAAAA AAANAAN 377

SEQ ID NO:4746

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05634

SEQUENCE DESCRIPTION:

GATCCTGAAG TTTTGGTCA ATAGGCTCTG TCTTCGTGAG AGACGGGCTG AGAGTCAGAA 60
 ATAAATCAAC CATTTNTGGT TTATTCAA 89

SEQ ID NO:4747

SEQUENCE LENGTH:55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05635

SEQUENCE DESCRIPTION:

GATCTTTCTT CTCCCAGCTA AGAGTTCTTC AATAAATTTA AGAAATACCT GGAAA 55

5 SEQ ID NO:4748
SEQUENCE LENGTH:244
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
10 CLONE:HUMGS05636

SEQUENCE DESCRIPTION:

GATCAGCAGG GACCAAACCA TTGCCACATC CCAAGGNTGA ACAAGCATGG CTGAGCACCA 60
GAGTNTGCAC CAAGTNTGAN TTTAGGCCTG CCAAGTGGAT TTACACCCAG CACGTCCCAA 120
15 ATTTGGGTGA GTGCATGCCA ACCCTGTAAA CATGTAGGGG TGGACAGGTC AACAGACAAG 180
GTGACCCAG CNTCCCGGCA AACTTGATTA ACACATACTG GNCACAGCAA TTANNNGAN 240
NTGN 244

20 SEQ ID NO:4749
SEQUENCE LENGTH:184
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05637

SEQUENCE DESCRIPTION:

25 GATCGCAGGG CCNTAGGTGC CTGGACCCAG GGTGTGCCAG CCCGTCTCTN TGCAGTCCCT 60
GGAAGGGCGC TGAGAAAGGC ACCAGCTCCT TGGACCCAC CTCCCATGCT CTCACTCTCA 120
TCCCCGTTCT CTTGTCCACA CAGCTCTTCC AATAAAGGTG TTTCTNTTCC TCCTTCTCCT 180
CAAA 184

30 SEQ ID NO:4750
SEQUENCE LENGTH:282
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
35 CLONE:HUMGS05639

SEQUENCE DESCRIPTION:

GATCCTAGTT GCCTTTGTGT ATATTTACTG CCTGCTTGAG TGTTTCTATG TGTGGGTTTT 60
CCCTGTATCT TGTAGAAATG TTGGGGTGT TCCCTCTGCC ATATGGCTCG TGCCCTGCGA 120
40 GCCAACTATT TCAGNTGTGT TTNACCTTCA TTTTGTATGA GGTGATTTAA ANNTNGTTTC 180
ACTTTGTGTA GTGAATTCCA CAGTAGTTTT CTGANTGTNG TTAAAAATGA CTTAACATAT 240
TACACAGATA TTCAATAAAA ANGTTTTATT TCCTGTTGNA AA 282

45 SEQ ID NO:4751
SEQUENCE LENGTH:65
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05640

SEQUENCE DESCRIPTION:

50 GATCCCATTTG TGTATAAGTT AATATGTGAT AACTATTGAA TCTTGTACAA AAACAAAAAT 60

55

TGAAA

65

SEQ ID NO:4752

SEQUENCE LENGTH:159

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05642

SEQUENCE DESCRIPTION:

GATCCATCCG CGGTGTTGCC TGAATCAACC GTCATCCCT CGGATTGCTG AGCAGGATTG 60
 ACAGGGTGGA GGCACCACAA TGTATCTGTG TCCCAGAAA GAATACTTGC AGTTTCCAGT 120
 TGGACACTTT ATCAATAAAA TCACTATAAA CATCTGAAA 159

SEQ ID NO:4753

SEQUENCE LENGTH:352

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05643

SEQUENCE DESCRIPTION:

GATCTTGAGT TGCAGTCCAC AGCATTCACA TTCTCAGGAT AAACATGCTT GTCTCCATAT 60
 ATACTATCTG TGCCTGTAAT GAATGAAAAA TCCATCCACT CTGCTGCCAT TCACAGCCTA 120
 ATCTTCTGGA GTAGTCCAAA CAATGTTTGG AAAACATGG GACTGTATGT CATTACTATG 180
 ACTGATAGCA GAATAATAAT GCATCTNACT TCTATATAGN GATAGNCTTA CATAGGTTAC 240
 CCTGANATT CATTAGTNTG TCATANGTTT TAGGAAAGGT AGGACCCGGN AAGNNGTTCT 300
 ANTTAGTTGT CTAAATNTT TNCAGTGNGC CAAGNNATTC ACCATGANAN AN 352

SEQ ID NO:4754

SEQUENCE LENGTH:297

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05644

SEQUENCE DESCRIPTION:

GATCGGCTCA AAGCCTGTCA GCAGAGGGAA GGACAGAACT ACCAGCAGAA CTGTATCAAG 60
 GAAGTGGAGC AGTTCACCCA GGTGGCCAAG GCCTACCAGG ACCGCTATCA GGACCTGGGG 120
 GCCTACAGTT CTGCCAGGAA GTGCCTGGCC AAACAGAGGC AGAGGATGCT GCAAGAGAGA 180
 AAAGCTGCAA AAGAGGCCGN CGCTGCCACC TNCTGAGGCA GCTGTGGGTG CCCCTGCTGT 240
 GTGGCTCTGT ATNACTTGTT TGCTTGAAAT NTAAGGCC TNGCAAACCC TGGGAAA 297

SEQ ID NO:4755

SEQUENCE LENGTH:126

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05645

SEQUENCE DESCRIPTION:

GATCCCAGGC CTGTGGCTAG CAGCACTGGG GACAGGAATG GCTGGTCCCT TGAGGAGGTC 60
 GTGACAGGCT CAGCCTNGTN GTCTNGAGGG GACTCGGAAA TAAATTGTAG CAGCTTTCCT 120

GCCAAA

126

SEQ ID NO:4756

SEQUENCE LENGTH:317

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05646

SEQUENCE DESCRIPTION:

5 GATCTAAAA GTCAAAATC TGAAATTTAA TAATATGAGA CTTACACTGA NTATAATGTT 60
 CATTAGAAG TTGCTGTGGT CCACTTCATT TATANGGAAC AAATATTTT ACAGTACACT 120
 ATAGCAACAG CAAAAGCCCT CTCTACCCT GATAGGAATG GGTTCGCTGG GTGTCTAGAA 180
 10 GTTAGATTCC TGCTGAATAG ANTTAGCCAT CCTTAAAGA TNTTAATCCA ATACTGAACT 240
 15 GGTTTATAAA ANGCTTCTC TATTGTANTG NACTGTAAGT AGTGAAATTC TGTATATACT 300
 GCTATTNGCT GNCTGTN 317

SEQ ID NO:4757

SEQUENCE LENGTH:228

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05647

SEQUENCE DESCRIPTION:

20 GATCAGTAAT CCTATTAAAG AAGCGGAAGA AGATACCTCA GAAAGGTCGG AAGAAAAAAG 60
 GTTTTCGGAG GCGGCGGTGA TTATGGGTGT ACATATTTGT ATATTTTGT TCATCCTGAG 120
 25 ATACTCTAA TTTCATTGTA TATAGGTGGT TTCCCTGGA ATTCATTAAT TGTTTGCTTT 180
 GGACATGTGG AAAGAGCCTT ACTAATAAAA TTGATTTTAC TTATGAAA 228

SEQ ID NO:4758

SEQUENCE LENGTH:312

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05648

SEQUENCE DESCRIPTION:

30 GATCAGTTCT GAAACAGTTT CTTTCTGAAA CAGAGAAAAT GTCCCCTGAA GACAGAGCAA 60
 AATGCTTTGA AAAGAATGAG GCCATACAGG CAGCCCATGA TGCCGTGGCA CAGGAAGGCC 120
 40 AATGTCGGGT AGATGACAAG GTGAATTTCC ATTTTATTCT GTTTAACAAC GTGGATGGCC 180
 ACCTCTATGA ACTTGATGGA CGAATGCCTT TTCCGGTGAA CCATGGCGCC AGTTCAGAGG 240
 ACACCCTGCT GAAGGACGCT GCCAAGGTCT GCAGAGAATT CACCGAGCGT GAGCAAGGAG 300
 AAGTCCGCTT TN 312

SEQ ID NO:4759

SEQUENCE LENGTH:95

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05649

SEQUENCE DESCRIPTION:

GATCAAGGTA AGAAACATTG TAAAAAAGG TTACAAAAGT GCTATTTGTT TCCTAAAAAC 60
 AGTGATTTCT ATTAAGGAGG TGTGAGANCT GGAAA 95

5 SEQ ID NO:4760
 SEQUENCE LENGTH:336
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 10 CLONE:HUMGS05650

SEQUENCE DESCRIPTION:

GATCCTNITT CCANTNAAA GGAAGTGTAA GCTTTTATCT TTTAACCAAC TGAACAATAC 60
 ACCAAAAGCA GCCTAGGGAT GAGCATTCTT TTGAAAGCAA TTAGTTTATT CACCTGGTAT 120
 TAAAACTATT TACTGTAAA AAATCTGTGA CTTGATGAAG TTGATTTNTA AAGGCAGCAT 180
 15 CANAACTGA NANGGAAGGG AAANANTAGG CAGCTTCTCT GCACTTGTTT GGAGCTCCCC 240
 AAANCAGGGT GCCATGGGGN AGTGGGCATC AAGNCCGGGC TGCCCTTTTCG NGGTCANCCT 300
 GTGGCAGTTC AGAGTCANGG TTTTCTCNC GCTGGN 336

20 SEQ ID NO:4761
 SEQUENCE LENGTH:310
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05651

SEQUENCE DESCRIPTION:

GATCCAAATT CCCAGGTCCG CGCCTGCATC GTGAATTCAG AAAACAAGAT TGTCGGGATT 60
 GGGTACAATG GGATGCCAAA TGGGTGCAGT GATGACGTGT TGCCTTGGAG AAGGACAGCA 120
 GAGAATAAGC TGGACACCAA ATACCCGTAC GTGTGCCATG CGGAGCTGAA TGCCATCATG 180
 30 AACAAAAATT CGACCGATGT GAAAGGCTGT AGTATGTATG TTGCCTTGTT CCCTTGTAAT 240
 GAATGCGCTA AGCTCATCAT CCAGGCAGGT ATAAAAGAAG TGATTTTCAT GTCTNGATAA 300
 ATACCATNTN 310

35 SEQ ID NO:4762
 SEQUENCE LENGTH:364
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05652

SEQUENCE DESCRIPTION:

GATCCCCTCC AAGGAGCACC CATATNACGC CGCCAAGGAC TCCATCCTGC GCAGGGCCAG 60
 GGGCATGTTT ACTGCCGAAG ACCTGCGCTA GGGGACTCCT CATAGCCCTC AGCCCTTCCC 120
 TCGTTTCCAG GCCTCTCCCC AGGCTTGCCA TCAGCCTTCT TTAATTTTGG AGCCTCTGAT 180
 45 TTCCAATTCC CTGCTNCNNN CCACTCCATT AAGAGGCTAG GTGAGGCGCT TCTAGGTTGC 240
 TGGGGCTCTG CTGGTTAAGG AACAGGAAGC CTGACCATCT CCCTCCACTA CCTCTTCCCT 300
 GTGCTGTTAC ACAGTGTGAT TGTGATGTT AAATTAAGT CATATTCTTG CTCTTTCCG 360
 NAAA 364

50 SEQ ID NO:4763
 SEQUENCE LENGTH:333

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05653

5

SEQUENCE DESCRIPTION:

GATCGTCTGG AAGCAGCAGA GATGTACAGA AAAGCTGCTT GGGAAAGCGTA TTTGAGTAGA 60
 CTTGGTGTTT GAGTGCTTCA GATACATTTT TCAGATACAA TNTGAAGACA TTGAAGATAT 120
 GTGGTCCTCC TGAAAGTCAC TGGCTGGAAA TAATCCAATN ATTCCTGCTT GGATTCTTCC 180
 10 ACAGGGCCTG TGTAAGAATG GGTTCCTGGAG TTCTCATGGG NCTTTTAGGA AATATTGAGT 240
 AATTTGGTAA NTCACCGNAT TGGTTACTAT ANATAAGGTC CCANTNCNTT AAGGCTTGAT 300
 AAGGTGAATN GNGGTGNGNN NTNTGGGGGG AGN 333

SEQ ID NO:4764

15

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05654

20

SEQUENCE DESCRIPTION:

GATCCTCCAA AATTCAAACA AGGAAAAATC TCTCCAATC TCTCCTTCC TCCATCCCTT 60
 TTCTTTACTT CTCATCCCAT ATATAATATT ATATAANGCA TACGTAATAA AAGACATTCA 120
 CTATTATTAA A 131

25

SEQ ID NO:4765

SEQUENCE LENGTH:271

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

30

CLONE:HUMGS05655

SEQUENCE DESCRIPTION:

GATCTCTTTT GCTATGGCTC ACATTATTTT CATAAAGTTG CTGGCCAGCT TTTACCTCTT 60
 GCATATAATC TGTGAAGAG GAATCTGTTT GCAGAAATTA TTGAGGAGCA TCTGGCAAAC 120
 35 AGAAGTCAAG AGAACATAGA CCAACTTGCT GCATGAGTAA GGTGGCTTTG NTTGGTGTAC 180
 AGTATTTCAG AGGACTAGTA TTAANCTTGT GATTNGGTT TTGTTTTTAA GGGGTACANN 240
 NNGTAAGCCA TTNCTTAAN AACCGTTGAA A 271

40

SEQ ID NO:4766

SEQUENCE LENGTH:87

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05656

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SEQUENCE DESCRIPTION:

GATCTTTCTC TTGAGTCATT TTATTTTAT CATGGACTAG TCGTGCTCC GTGTCCACCC 60
 CAATAAAAGG GTCTTTCCTA CTTGAAA 87

50

SEQ ID NO:4767

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS05657

SEQUENCE DESCRIPTION:

5 GATCTGGGCA ATTTTGGCCT TGACTCTTTC CTGGCTCCAG AGCTCAAGCT TAGANGCCAG 60
 CCCTGCTATT TCCAGCCTCC TGAAGGCTCA GCACGGTGAG GCCTGACATC CTGGGGAAGG 120
 GCAACAGGGA GACCTACAGG ATGNTGGCTG CTTGCAGACT GGTCAATGGG GGATGACGGT 180
 GGGGAGGTTG NCAGATGTGA GACTTNNGTA GCATTNGTA CACATGGCCC TGTAGTTGTC 240
 10 CTTTNGAAGA ACATCANTNA AAATATANGG GTNNTTAAAT TNTGGGNAAA AAN 293

SEQ ID NO:4768

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS05658

SEQUENCE DESCRIPTION:

20 GATCTTGCTA GGAAGGCCA CCTTGTATGC CGTGCTGGTC AGTGCCCTCG TGCTGATGGC 60
 CATGGTCAAG AGAAAGGATT CCAGAGGCTA GCTCCAAAC CATCCCAGGT CATTCTTCAT 120
 CCTCACCCAG GATTCTCCTG TACCTGCTCC CAATCTGTGT TCCTAAAAGT GATTCTNACT 180
 CTGCTTCTCA TCTCCTACTT ACATGAATAC TTNTNTCNGT TTTTNTGTT CCCTGAAGAT 240
 TGAGCTCCCA ACCCCCAAGT ACGAAATAGG CTAAACCAAT AAAAAANTGT GTGGTTGGGG 300
 25 CCTGGGGNGC AAA 313

SEQ ID NO:4769

SEQUENCE LENGTH:279

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS05659

SEQUENCE DESCRIPTION:

35 GATCCCCTCA TCACCCTGT GCCCACTTCG GAGAACCNT TCCGGGAGAA GAAGTTCTTC 60
 TGTGCTCTCC TCTGAGCTCC CCTGTCCCTT CTCACAACTN CTCCTTTTC CCTCTCCTGG 120
 GCCCTTCCTT AGGTCAGTAA TTGTTGTGAG CCCCTTAGGC TCCTTGATC CCATCCCTAA 180
 CCCTTGCTG ACCATGTGAG GTTATCTGAA GCACAAGNNC CACCCTNANG NNGNNTNTCG 240
 ACCCGATTTC CTACCACCTT TTTTGGGCCG ANCCNAAGN 279

40 SEQ ID NO:4770

SEQUENCE LENGTH:203

SEQUENCE TYPE:nucleic acid

45 TOPOLOGY:linear

CLONE:HUMGS05660

SEQUENCE DESCRIPTION:

50 GATCCATGTA ATCTGACGTC ATCTTGTCTC GAAGTCTCTT TTTTGGCCC AGGCCTTGAA 60
 GAATACACTG TGACTTAAGA AGCCTTACCA CGCAGTAACT AAAGCTTTAG GATGACTGTN 120
 TTCGAGGAGT GCCGTGTGTT GCATGCAGCT ACCCGTAGGA AGACTTCGCG CATATCACTA 180
 ATAAACCTGA AGTCGTGATG AAA 203

55

SEQ ID NO:4771

SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05661

SEQUENCE DESCRIPTION:

GATCGTTGTG CTTTNTTNC TGTGTTGGTT GCCAGTTTAT AGTGCCAACA CGTGGCGCGC 60
CTTTAATGGC CCGNGTGCAC ACCNAGCACT CTCGGGTGCT CCNATCTCCT TN 112

SEQ ID NO:4772

SEQUENCE LENGTH:291

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05662

SEQUENCE DESCRIPTION:

GATCTGGGAG GTGGAAGCCA GGCCAGAGGA CTTGGGGAAA ATNAGATGGA GGAAGGAAAA 60
AGGGAGAAGC TGAGCCACAG CTTAACTCCT ACAGAGTGAA ATNAAAACGG GCTGAAAATA 120
CCACCCAGG AGAGGACCTC GNCCANGCA AGCCAGTGAG CAGCCCTGCC AGACTACTGN 180
CAGNCTGNGA AACCCAGANG CTGGGTAGTC ATGTGGGGCT TGCCTTCITT TGCCAAAACG 240
NCTGGGGGAA NCCAAAAATN GGGCCCCACC CTTNNTGTTT CTTTCCTTNG N 291

SEQ ID NO:4773

SEQUENCE LENGTH:133

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05665

SEQUENCE DESCRIPTION:

GATCCAGGC CTNTGGCTAG CAGCACTGAG GACAAGGAAA TGGNTGGTCC CTTGAGTAG 60
GTCGTACAA GGCTCAATGC CTGGTNGTCT TGGAGGGTAC TCGGAAATAA ATTGTAGCAG 120
CTTTCCTGCC AAA 133

SEQ ID NO:4774

SEQUENCE LENGTH:316

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05667

SEQUENCE DESCRIPTION:

GATCACCCAG CAGGAGTCGT GGCAGAACGG AGCATCAGCC AGACCCTGTT GTGGGCGTTG 60
TCATCAAGGG AGCTTGAATG GAGGGTCTGG TGTCAGATAC AGCCGACTCC AGCCCCAGCT 120
CATCCCCAT GATGCTGTGT GACCCACTGG GCACTCTGGT GAGGGAGCTT TCCAGACATC 180
AACAGCCCAC TCTGCTTCCC TTTCTGAGTC CCCTGTCCAG CACTGCCTAG TGTGGAGGG 240
TAGACCAAGG CTGTGCATGA TTCACCCCNCT CTTCCATCC TGGAGCTGGC AGTGAATAAA 300
AGCCCGTATT TACAAA 316

SEQ ID NO:4775

SEQUENCE LENGTH:113

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05668

SEQUENCE DESCRIPTION:

GATCTCCAGA GACCCAAGTT TAGGTTCTCA TAGTGTATTT GAAGTAGTTA TACTCCTGGC 60
TTAAGTAGTT TAGTGCCTGG GAGAATCCAT TACTGAAAAG CATTAACTT AAA 113

SEQ ID NO:4776

SEQUENCE LENGTH:157

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05669

SEQUENCE DESCRIPTION:

GATCTAACAA AAATGAAACA TGAAATGCAG TAGCAACCAC TAAAAAAAAA AATTCAAGGN 60
CATCTAACTN TTTCTCTCAC TTTNGCCCTT TGTTATCCT TCCCTGTGAT TAGATAANCA 120
NAATAAAAAAN CAAAATGCTG TATTTCTCTN CTTACGN 157

SEQ ID NO:4777

SEQUENCE LENGTH:214

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05671

SEQUENCE DESCRIPTION:

GATCACTTAG AGAAACAGGC CGTTAGGAAT CCATTCTCAC TGTGTTGCT CTAAACAAAA 60
CAGTGGTAGG TTANTGTGTT CAGAAGTCGC TGTCTTACT ACTNTTGC GG AAGTATGGAA 120
GTCACANCTA CACAGNGANT TCTCAGCCTA CAAATTGTGN CTATACATNT CTAAGCCTTG 180
TTTGCAGNAT AAACAGGGCA TTTNGCAAAC TAAA 214

SEQ ID NO:4778

SEQUENCE LENGTH:141

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05673

SEQUENCE DESCRIPTION:

GATCAGTTN CAGCAGCAAG TACAAAAGGA GAAGAGGAAC ATCCGTTGAA TNAGTGTGTT 60
TTGTACATAA CTTTACAGATAC TTGTNAACAT GCCTTATATT TGTCCAACAA CTGTCAGANT 120
AAAGAACATT CTAATAATNAA A 141

SEQ ID NO:4779

SEQUENCE LENGTH:154

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05674

SEQUENCE DESCRIPTION:

GATCTTGTGA AAACACNGTN TTNTCGACTA AAAATTCCAC TNTCTTCATC TNGTTGTGAA 60
 GCTAAAAAGA GGGACTGTTA AATACAATGT ATGATACCAT GGCAAAAATC TTTCTGAAT 120
 TGTCTTTNGT AAAAGTATTA TTGAATTTN CAAN 154

SEQ ID NO:4780

SEQUENCE LENGTH:236

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05676

SEQUENCE DESCRIPTION:

GATCAAAATA GCTATTGCTA CAACATTTTC GAAAACAAAG TTGGGGCTGT ATTTCTTTAA 60
 AAAGATAAGC CTCTAAAAAT GCTTGGCAAA AAAAATATAG TGTTAAAAATA GGCCAGTGAT 120
 ATTAATGAGA AAATGAAAGT ATGTATCAGG ANTAANGTGA TATTGCATAG GNGTATTGTA 180
 TTTTATGAA TTTNATGCCA GTTGTTTACA TGTACTATAT ATGTNAANTT ANNNNN 236

SEQ ID NO:4781

SEQUENCE LENGTH:168

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05679

SEQUENCE DESCRIPTION:

GATCTCAGTT GCACGTGCAA ACAAATCCAA ATTGGAACAT TCTTAGGAGG TTTTNTTAA 60
 GGCATGACAG ATGATNTAAA CAAATAAATA GCATGCAACA AAANGTCTTT ATTGNAAGAA 120
 GTGGAAGTTA TCTTAATGCC ACGGNTCACC ANCAATTNAA AAGTANAN 168

SEQ ID NO:4782

SEQUENCE LENGTH:79

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05680

SEQUENCE DESCRIPTION:

GATCAGTGAA CACTAACATT TTGGGGACAA CTTAGTCAAT TGGTTTTCCT TACAACAAAA 60
 TAAAGTAAAA TGTAGCAAA 79

SEQ ID NO:4783

SEQUENCE LENGTH:107

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05681

SEQUENCE DESCRIPTION:

GATCACCATT CAATTTGAGT TTCCAGGGGG AAGTGCATGT ATAATGNAAT GATAATGGAC 60
 TTCAATGANG GATGTCATCA ATNATGNACA TATAGATNGC CTTATAN 107

SEQ ID NO:4784

SEQUENCE LENGTH:319

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05682

SEQUENCE DESCRIPTION:

GATCTAATAA GACACGTAAT AGATTAGAAG TAGGGAAATT AATGAAAAAG CAGAATTAAG 60
 GATGACTTCT CACTGGCTTG AAATNCTAAA TGGATGACGG TGCTGTTTAG TGAGTTGGGG 120
 AAGACTGGGC GTGGTGATGG GTGTAGAAAT TGAGAAAGGA AAATCAAGAN TTCACAGAAC 180
 TTTACAGACA ATGTTAAATA CTTTCCTTGA TAGTGGGTCA GTCATCATTT ATAAGTGCAT 240
 TTCTAAAAAT NTGCTTAAT TTTNTTTTGG AGCTTTGTAT AAGTGAATT TTGTGTGTAC 300
 TGATTATNTT GCTCAATAN 319

SEQ ID NO:4785

SEQUENCE LENGTH:78

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05683

SEQUENCE DESCRIPTION:

GATCTTTCAT CTGTGATTCT TATAAGAGCT TTGTCTTCAG AAAAATAAAA AATAAAAGGC 60
 ATTGACTTAA ACAGCAAA 78

SEQ ID NO:4786

SEQUENCE LENGTH:51

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05684

SEQUENCE DESCRIPTION:

GATCAGTTGT AAGTTCATTT CTTTACAAAT AAAAGCCTCT TCCATTTGAA A 51

SEQ ID NO:4787

SEQUENCE LENGTH:288

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05685

SEQUENCE DESCRIPTION:

GATCTTTTCC ATCTGAGGGT ACAGGAAGTA CCAGGACCTG TTTACATTTT TNAATCCTGC 60
 AAGCACATTC CAAGACTGGC CTGAACTGC ATGAGCAACA TCACTCGAAA TAATTTTTTT 120
 TTTCAAANGC ACCTTAACAA CCANTTGCGA TGCTGTCCTG TTCCTTTTTC CTCACACCCT 180
 TCTNTCCTTT CTCGTCCCA TGTCCACCA NTCAGTGCT NTGTGTGTGA TGGGTGTGCT 240
 CTCTGTTNTN GTATACTCAA TATANGTGA ATAACTGGT GTTTTGTN 288

SEQ ID NO:4788

SEQUENCE LENGTH:278

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05686

SEQUENCE DESCRIPTION:

GATCATGCAT GCAGTCATGT CTCCAGTATT CTGTGAAAAG CCAGGATACG TTAGGATGTG 60
 AGTTTAGAAA CTGAGTCCAT TCGGTGCATG GAAATNCACC GCGGAGTTAC ACAANGCTCC 120
 TCACTGTAGT CCAGGCGATT GGTNGGCCGC CACACCCTG CGGGCTTCAC AGGGACGCGT 180
 GCTTGTNCTC CAAGNCCCGN AACCTTACT GTGCACACAN CATCNNACAC ACCTTTGTTT 240
 TTGAAATTAA AATGTTNATT AGTTNAAAAA AGGGNGGN 278

SEQ ID NO:4789

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05687

SEQUENCE DESCRIPTION:

GATCCCGGTG TGTGGCCCAG CTTGTNCAGG CCCTGGNATG CTGCATCTCC AGGCAACTAT 60
 GCACCTTCCC GGGGAGAGAA CCAGTATGAG AAGTGGGGC AGGGCACACA TTCATCTTTG 120
 TAGGAAGGTC TGGCCTGGGG TCGGGTGAAG GAGGGCCCAG GTCAGTNCTG GGGTCCCAGT 180
 GACCTGCTTT GCCATTNTCC TGGTGCCGNT GCTGCTCCCT GTTCTGGAG CTGGATGTTN 240
 CCNAGCTGGC AGTTGAGCTG CCTGAGCCAA TNTAGTCTAG NCTTTGGTAA CTTGNGTGAA 300
 CCATAATAAN GGGGAACCAT TNTNGGCCTT GTGNAAA 337

SEQ ID NO:4790

SEQUENCE LENGTH:251

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05688

SEQUENCE DESCRIPTION:

GATCACAAGG CTGCCTGCCT CAGTCTTGGA GTCCTGTTGG GTGAATNAGG CAGATGGGAA 60
 ANAGCCTCAC CAGCAGCTGC TTTTGAGCA GGGGTCCAAG GAAGAGAGGG TGGCCTCGAC 120
 ATCAAACCTGC CTGGATTTT CTACCACCCT GTTACATCAT AACAACCTCT GAAACACACA 180
 CCAGCCCTGA GTTCTGGGCT CATTGAAGC CTGGAATAGC AATAAATCTT TTTAACTTGC 240
 GGACAGTTAA A 251

SEQ ID NO:4791

SEQUENCE LENGTH:316

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05689

SEQUENCE DESCRIPTION:

GATCGAAGAT GTACAATGTT AAATGTNCAT ACCAGTTAAA CTGCACCTTC CCAAGGGGNC 60
 AGCTGGNATC TACTTGAAAT GGGNATCAAG AGACCACCAA ATGTTTACAG TTTCTGTGGC 120
 CCGTTTAAAGT GTAAAATGCA GAAGTGGCTC TGTCCCCCA GAGTTAAGGN TTTGCTACAC 180
 TGGTCCTCTG GAAGCATTTA NGTAGAAGAA AAGGCTTATA GTCAGNNTCA CTTTATAGTAA 240
 TCGTCTNCTG GTCCTTGGNC TNTTCTGGTT CTGTNANTGC TTGTAACCAA TGANTGATGG 300
 TGTGCCAAT CTNAGN 316

SEQ ID NO:4792
 SEQUENCE LENGTH:346
 SEQUENCE TYPE:nucleic acid

5 TOPOLOGY:linear

CLONE:HUMGS05690

SEQUENCE DESCRIPTION:

10 GATCAGTCCT GTCATCCAGC TGCAGCCAC CTCACACCC ATGCGGGTCG CACTNGCTGG 60
 CACATTCCAC TACTACAGCT GCGAGAGAGC CAAAAAGGCC ATGGGCTACC AGCCACTAGT 120
 GACCATGGAT GATGCTATGG AGAGGACCGT GCAGAGCTTT NGCCACCTGC GGAGGGTCAA 180
 GTGAGGGNCA CTNGNGGCTG GGCTCTCTNG ACACGTTGCT CAGCCAGTCA CTNCTTCCCC 240
 TGNTGGATTG ATGAGNTAAC ATCCTTTNGA ATGGAGTTN GCTCTTTGCC TGTGACTCCT 300
 TCTGCTAGGC AGNGGAGCGC ACCNTACTNT TTNCGTNGCG GTNGN 346

15 SEQ ID NO:4793

SEQUENCE LENGTH:187

SEQUENCE TYPE:nucleic acid

20 TOPOLOGY:linear

CLONE:HUMGS05692

SEQUENCE DESCRIPTION:

25 GATCCCAGGG ACTCATCCTG TGACTTTGTA ACCACACTCA TTCCTTTCAA ACACAGAGGA 60
 GGAATTATTG CTCATCTGA CTTTATTCAA ATCTAGTTAT GTATTGGCCT AAATTATTG 120
 TGCAAAATTT GAANNNNNT TTNATTTAAA TATTAGAAAT AGCACAAAGT CATGGNGTTT 180
 TTAANAN 187

30 SEQ ID NO:4794

SEQUENCE LENGTH:228

SEQUENCE TYPE:nucleic acid

35 TOPOLOGY:linear

CLONE:HUMGS05693

SEQUENCE DESCRIPTION:

40 GATCTCAAGA GCCCTGTCAG TAGAGTAGAA GTCTCTTCCA GTTTGCTTTG CCCTTCTTTC 60
 TACCCTGCTG GGGAAAGTAC AACCTGAATA CCCTTTTCTN ACCAAAGAGA AGCAAAATCT 120
 ACCAGGTCAG AATAGTGCCA CTAACGGTTG AGTTTGGACT GCTTGGAAGT GGAATCCTTT 180
 CAGCAAGACT TCTCTTTGCC TCAAATAAAA AGTGCTTTTG TGAGCAAA 228

45 SEQ ID NO:4795

SEQUENCE LENGTH:230

SEQUENCE TYPE:nucleic acid

50 TOPOLOGY:linear

CLONE:HUMGS05694

SEQUENCE DESCRIPTION:

55 GATCTGCTTA AAGTTTAAAC TTTTATACCT ATCTGAGTGA ATTACAGACA ACCTATCATT 60
 NATNCTGCTN CGAGGGTCCC CAGGGCCCTT GTACAACCGA CAGNTCTTAC TTTTAAATGC 120
 AATCTCTTGT CTACATACAT NATTTTCTTA ATNGTTAGC TATTTATAGA AAGCTGCAAT 180
 AGAACTGTNT CAACTGTATA ACTATTACN ATTCANAATA NAANTATTN 230

SEQ ID NO:4796

SEQUENCE LENGTH:367

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05695

SEQUENCE DESCRIPTION:

GATCTCATT GCTGAATGAT TGATTAAAGA GTAAAATTNG CCACTGCGTG CTTTTGTAT 60
 AGTAACCGGT TTTGTTGCAC TNGTCTGTGG CTGAAACACT TACCTGCAGT GGAANGCCGA 120
 GCAAGGAGGA GGTAAACATT GGAGATGTTT GTGAAAATAT TACTCTTGCT GTGAGGTTT 180
 AGTTTGT TTTT GAATGAGAAA GGGGCTAAGT AACTTAATCC ATCTCAATGT AGTGT TTTTAA 240
 TAAAAANGGN GCCTAATATT TGAAATGGGG TCTCAGGNCA TGNTCTACAA ATNTGGGGNA 300
 NCTATTTTNN ATGCCCCGTG TAATTTTNCA CCATTTTGNN NATGAGTTNA TTGTAGGGGT 360
 CANNATN 367

SEQ ID NO:4797

SEQUENCE LENGTH:88

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05696

SEQUENCE DESCRIPTION:

GATCTTTTCT CAGAGCGTCT CCATGCTATG GTTGCAATTC CGTTTTCTAT GAATNAATTT 60
 GCATTCAATA AACAACCAGA CTCAGAAA 88

SEQ ID NO:4798

SEQUENCE LENGTH:239

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05697

SEQUENCE DESCRIPTION:

GATCACAAGT GCAGCATTCC TTAATTCCTT CTGCTATATG TCACACAGTT GTTATTTGGA 60
 GAACCAAGTA TGTATTGCAT GAAAACATTA TGACTTTTTT CTCTTAGTTT AAATAAACTC 120
 CAAGGTAAGT GGACTTCTAA AGCACCTTTC TGTTCGCTG ATATCTACTT TAGCAATAAT 180
 TTTTTTTACA ACCCTCTGAC TCAACAAAGT AAATAAAAGT ATATTTTATC ACTATTAAA 239

SEQ ID NO:4799

SEQUENCE LENGTH:148

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05701

SEQUENCE DESCRIPTION:

GATCTGGCCT TATGCCCAGG CCTGGGCCCT CAGAAAGCCC GGAGGCTGTT TGATGTCCTG 60
 CACGAGCCCT TCTTGAAAGT ACCCTGATGA CCCCAGCTGN CAAGGAAACC CCCAGTGTA 120
 TANTAAATCG TCCTCCCAGG CCAGGAAA 148

SEQ ID NO:4800

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05704

SEQUENCE DESCRIPTION:

GATCCTCAAC AGACACCTTC CTTGACTGAA AGTTTAAATC GTGATGCAGA GNCAGTCAGT 60
NATNTNCCGC CATCCACAGG AAATTCAGCA TCTTTATCTC TNCCACTTN 109

SEQ ID NO:4801

SEQUENCE LENGTH:147

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05707

SEQUENCE DESCRIPTION:

GATCAATTCA ATTAGATTAA AATNAAGAAC CTTGGGGCAG AGTTTGGGTT TTGTAAAATN 60
AAAAGAGTTC TGGAGTTAAG CATCGTGAAC ATGCTTAACA CTACTGAACT GTACACTCAT 120
TTTATAATAA AACTATTAAA TTGTAAA 147

SEQ ID NO:4802

SEQUENCE LENGTH:295

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05708

SEQUENCE DESCRIPTION:

GATCTAATTT AAAATTCATT GGATTGAAAT NTATTGAATA TAATTCANCT TTTGTAACTA 60
GGTAGACTTT NCTNATAGTT TAGTTTTAAT ATAGTTTAGG GTATTACTGG CTTTCCCCCA 120
GGTGACACAC TAAGGNCITGT TTACATGGCA ATTCCAGCAG CAACAGGNGG CTGGAATTNA 180
GACAAGGAAA GCTCATTTGT TTCTTTTATG AAGGTAAAG AAGTCTACAG CTTGGGCTGG 240
CCGGTATTTA TTNATTCTGT GGCCAGAGGA TTTTAAATTT NNCNCNAATN TTNTN 295

SEQ ID NO:4803

SEQUENCE LENGTH:52

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05709

SEQUENCE DESCRIPTION:

GATCATGCCA CTGTCCTCCA GCGTGGCAAC AGAGTGAGAT TCTGTCTCCA AA 52

SEQ ID NO:4804

SEQUENCE LENGTH:374

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05710

SEQUENCE DESCRIPTION:

GATCAGATGG GGACACACAA CCCCTGGATA TGTTCATTG TCAGATTTG TGCTGNNATT 60
 TTAAGAATGG AATGGTGGGT ATCTTTCCTT TTTTAAATG TATCTTAACT GTTGCCTGTC 120
 AGTGNNNACA AACTAGTGCG TTGACGGCAC CGTGTCCAAG TTTTAGAAC CCTTGTTAGC 180
 CAGACCGAGG TGTCTGGTC ACCGTTTCAC CATCATGCTT TGATGTTCCC CTGTCTTTCC 240
 CTCTTCTGCT CTCAAGAGCA AAGGTTAATT TAAGGACAAA GATGAAGTCA CTGTAAACTA 300
 ATCTGTCATN GTTTTACCT NCCTTTTCTT NTTNAGNGC AGAGGTAAA AGTAAGTATN 360
 AAGCACCCGT GAAA 374

SEQ ID NO:4805
 SEQUENCE LENGTH:123
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

CLONE:HUMGS05711

SEQUENCE DESCRIPTION:

GATCTGACTG TGAAACATC CTCTCACTTG CATTCTTTTA ACTTAAACT ATTTAAGAAC 60
 TGATGTTCCG ATTATTGTAT ATATTNNCT AAAANCCAAA TAAAGCTACC TATGAAAATG 120
 AAA 123

SEQ ID NO:4806
 SEQUENCE LENGTH:299
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05714

SEQUENCE DESCRIPTION:

GATCAAACAG GAAATTGAAA GCCACTGNAA CTATGCAGCA TTTCAGTTT CATTTAAACA 60
 CTTAGTTCAG AAACCTTAAA GGATTGANT ATTTCAAATT GCACACGTCA CTCCAGCATC 120
 TCTGTAANAT AATTGGAATG AANATACTT TGGCACTTAA ACACCTGCACA TGCCGTNCTT 180
 TGCGGTTNGT CTGCATCTTG AACTTTAATA CCAANTTNNT TTTGCATGCT TTTGTTTCTT 240
 ACGNGATAAT GGCATGGTTT CATATGTNAC TACTTTGGAC CAGTGTTC ANNATGGNN 299

SEQ ID NO:4807
 SEQUENCE LENGTH:204
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05715

SEQUENCE DESCRIPTION:

GATCTGGACA AATGACAGTA ACTGTTTCTA ACCTTGATT TCTCATCTNT AAGATGCCAA 60
 TTGTAAGTCC TAAGGNTACT GAGGATTTT TAAATGCGT GTACAGTTCC TGACCAGTGG 120
 TTTGTGCCTA ATAAGTNATT ACAAATNATT ACCNAGTAAA ANCCTTGCGC CANGTGTGAN 180
 AACGTAAAGC TANTTAATCC ATNN 204

SEQ ID NO:4808
 SEQUENCE LENGTH:348
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS05716

SEQUENCE DESCRIPTION:

5 GATCAAGCGA CCTTGAGAGC AGAGNACAAA TCCCAGTGTT GCTGATATAT GGCTTCTNCT 60
TCTCTTGTTGT GTGCCCTCAGC TCTGAAGNAG TTCCTGAGAA TGGGTTACAG ATGTCATGTT 120
AGCTGGGAGT CTTCCACAT GTGGCACTTC AAAAGGCAGC ACCACTGGGC GCCTGCACTT 180
ATTGAAAAAT GGNACTTTGG GNGAAGTATC CCTGCTAGTG GCTCTGTAAC TTAACAGATG 240
TCANTTAGGC TTTTGTCAAT GTTGCCATCA TATNNANGCT AATGTNTACA TCCTTTTAAA 300
10 CANNTTNGT ATGACAATTN CCTCAGGATT TNGGGTAAGN CTTCCCAN 348

SEQ ID NO:4809

SEQUENCE LENGTH:287

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS05718

SEQUENCE DESCRIPTION:

20 GATCCTCCTG CAGACCACGC CCGTCCTGCC TGTGGCGCCG TCTCCAGGGG CTGCTTCCTC 60
CTGGAATTG ACGAGGGGTG TCTTGGGCAG AGCTGGCTCT GAGCGCCTCC ATCCAAGGCC 120
AGGTTCTCCG TTAGCTCCTA TGGCCCCACC CTGGGCCCTG GGCTGGAATC AGGAATATTT 180
TCCAAGAGT GATAGTCTTT TGCTTTTGGC AAAACTCTAC TTAATCCAAT GGGTTTTTCC 240
CTGTACAGTA GATTTTCCAA ATGTAATAAA CTTTANTATA NAGTAAA 287

25 SEQ ID NO:4810

SEQUENCE LENGTH:342

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS05719

SEQUENCE DESCRIPTION:

35 GATCACCACC CCGAGCCCTC TNATCCTCTA TGGNTTCACT CCCATCATGA TTTGGAATTA 60
TTTATTTGTG AACTTGATTA GCCGAGATTG TAAATNACAT GAGGTGAGG ACTGGACTGG 120
GTATGTTTTT TTCTCTGTTG CTTTCTGGC ATGAAGTACA GTAAATACAG CACCTGATAC 180
ATTATACATG GCCACAAATA TTTGTTGAAT GAATGANTAA AAGCACATTG GGTCTGACC 240
ATTCAAGTGC CCTGNAANGA ATGCAGTTTT TCAAACTTGT GCNTCACCAT CCATTAGCGG 300
GNGTGTGAAT CCAATTTAGG TNGGTGATGT CTAGCATTNN AN 342

40 SEQ ID NO:4811

SEQUENCE LENGTH:299

SEQUENCE TYPE:nucleic acid

45 TOPOLOGY:linear

CLONE:HUMGS05720

SEQUENCE DESCRIPTION:

50 GATCATTAAC CAGAGTACCT CTACTCTTAG CAAACTCTAG TTTATGACAA GTATTTAAAA 60
TATTTAAAC AAGCTTATGC AGTTCTTAAG GNCGNAGGTA AATGAGATGT ANCTTAAAA 120
TAGTATTGGG AAAATGTTGA TAGTTAACAT TAGTGGATTT AGACTAGCCA AATGACATAG 180
TAGGCTCTGA AACATCTTGT CAAGTNTATG TTTTTGTGC ATGANTTTTT GCTGGAAAGC 240
TGCTTTTCTC TGAAAAACAC ANCGTCTTA GACTGNNANG CCANTTATAA CNTAANN CN 299

55

SEQ ID NO:4812

SEQUENCE LENGTH:310

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05721

SEQUENCE DESCRIPTION:

GATCTTNATG CCCAACATTG GTTATGGAAG CAACAAAAA ACAAAGCACA TGCTGCCCAG 60
 TGGCTTCCGG AAGTNCCTGG TCCACAACGT CAAGGAGCTG GAAGTGCTGC TGATGTGCAA 120
 CAAATCTTAC TGTGCCGAGA TTGCTCACA TNTTNNGNTC CAAGANCCGC AAAGCCATCG 180
 TGGAAAGAGC TGCCCAACTG GCCATCAGAG TCACCAACCC CAATGCCAGG CTGCGCAGTG 240
 AAGAAAATGA GTAGGCAGCT CATGTGCACG TTTTCTGTTT AANTAANTGT AAAANCTGCC 300
 ANANAAANTN 310

SEQ ID NO:4813

SEQUENCE LENGTH:63

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05722

SEQUENCE DESCRIPTION:

GATCCCTTTT CTTTGTATGG ACCAGAAATN ATGGGTTGTA CAGGGTGCCA GATAGATTGG 60
 AAA 63

SEQ ID NO:4814

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05723

SEQUENCE DESCRIPTION:

GATCCCAAGT CTCTACTGGG GGATGAGAGA AAGGCATTTT ATAGCCTGGG CATAAGTGAA 60
 ATCAGCAGAG CTCTGGGTGG ATGTGTAGAA GGCACCTCAA AATGCATAAN CCTGTTACAA 120
 TGTAA 127

SEQ ID NO:4815

SEQUENCE LENGTH:350

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05724

SEQUENCE DESCRIPTION:

GATCGAATAC AGATGACCCT GCTGTCGTGT CTCATTGT AAAATNCTCC TACAAATGGA 60
 GACATTGAAG GATTATGTGT ATGGAAATNT TTACAAAATT CCTTTCTGTA CCTATTCTGT 120
 AGATGCCTGT ATAATCGGNC TGGATGTACA GCTATAAATG TGTGTGAGA GCAAGAGAGA 180
 GAGAATGGGT AGAGCCTGCT GTACCTTTT CCTTTTAAAT TCTTCGAGTT GGTAAATGAG 240
 TAAGATATTG GAAACCTTAA TGNAAAGCTG CTGTTTCATGN TTTGTGTGTA TAGTGAGCTG 300
 CCTGTAGTAT TTNCTATTG TCTGNTAAAA AAAGNAAANC CTGTAAACN 350

SEQ ID NO:4816

SEQUENCE LENGTH:178

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05725

SEQUENCE DESCRIPTION:

GATCTTGAAC AAAGNCACTT AGTTNCCCTG GGCCTTGGTG TCTTTCGTCT ATAAAAATATT 60
 GTACCAGATT ATCTCTGAAA TCACTNCAAG GTTAAATATA TATANTTATC AATATTTTAA 120
 AATTCAAGCA ATATTCACCT TAGANATTAT TATAACATTC TATANTNGTN GGGGGGGN 178

SEQ ID NO:4817

SEQUENCE LENGTH:123

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05726

SEQUENCE DESCRIPTION:

GATCGAATCG GGACATNATG GGAGCTGACA AATTTATATT CTNTTCAAT NATTTTAATC 60
 CCACTTCACT GTGAGGGGAA GGCCTTTTCA CGGGAATCT CCAAATATTA TTCAAGTGCC 120
 AAA 123

SEQ ID NO:4818

SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05727

SEQUENCE DESCRIPTION:

GATCCCAAAT TTGTCCATAG CTGAAGTCCA CCATAAAGTG GATTACTTT TTTTCTTTAA 60
 A 61

SEQ ID NO:4819

SEQUENCE LENGTH:292

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05729

SEQUENCE DESCRIPTION:

GATCTATAGA ATTAGATTTN NTTATATCTA AAGAAATATA TATAAATACA TAAACGTAGG 60
 TATGTATAGC ATGANCAGAA TACAGTGCTA TTTGACCATT GTCACAAGAC TTATTATATA 120
 AACCTCCTCA AGCTCTTGCC AATATCTTAG TTAAGNTTGC ATCTAAGGTG GCGGNGGGAT 180
 GNNGATTGAG GCACTGTGAG GTCATGNTTG ATTACCTGGG TGACAANATT ATGTTTACAC 240
 CAAACCCCCA TGNCACACAG TTTACCCATG TGACANNACN TNCACATGTC CN 292

SEQ ID NO:4820

SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

EP 0 679 716 A1

TOPOLOGY:linear

CLONE:HUMGS05730

SEQUENCE DESCRIPTION:

5 GATCCCCCAT ATACTCTGCT ACAGCTCCTA TCATGAAAAA TAAATGTTT GTCTTTGCAA 60
A 61

SEQ ID NO:4821

10 SEQUENCE LENGTH:140

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05731

SEQUENCE DESCRIPTION:

15 GATCCGNTGG GGTGAAAGCA GCCAGTCAT CCCAGTAACT CACAGGACAC AGCCATCCAG 60
CGGCATCTTT CCTGTGCGAA TGATACTGTA ATNACCTTC AAAGTNAAGA GTAGCACATT 120
AAAGTNATTT TATTGTAAA 140

20 SEQ ID NO:4822

SEQUENCE LENGTH:309

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05732

25 SEQUENCE DESCRIPTION:

GATCTCAATG CTGTCTGGGG ACCCTAAGAG TTTNCTNACC TGTNCAGTCT CATCTAACCT 60
TCCAATGTCT GATGTTCTG CCAAATTCCT GCCTGATTCT GGGTCCGTCC TGACCTCCAA 120
AGGTCAGCTT GGTGCTTGAG GTCTCCCTGC TCTTGGTGGC AGTGGTAGCA GCAACAGCAG 180
30 CAGCAGCAGC AGCAGCAGCA GCAGCGNCCT CTCCACTTN CCTTNGCCCN TCTNCTGGGT 240
AGAGAGGCAC TTTCAGGGAC TTTCTCCAG GNTGGNTCNT CAATATGGGA ATGNGCTNTG 300
NAAGGNTTN 309

35 SEQ ID NO:4823

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05733

40 SEQUENCE DESCRIPTION:

GATCCTCCTG GCGGCAGTAG CCTTGACAAG GGCCACCTCT TCACAGGATG CAGTCTGTCT 60
GTGCACCAAA CTCTTCACCA AATAGAACAC TTGTGTCTCT CTGTGGAAA 109

45 SEQ ID NO:4824

SEQUENCE LENGTH:233

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05734

50 SEQUENCE DESCRIPTION:

GATCCATTG GNAGGAAATG AGAGGGCTGT NATCAGCTCT NATTAAGAAA GGAGATTCT 60

55

TCATGCTTTC GATTCTGCAT GGGGTACAGC CAGTCACCTC ACCAGAGANT GACGGCTGGA 120
 GAAGTNAACT CTGTAATACC ATAAATAAGA GTGCTTGTA TAAAAGNCTG TGCACANGGA 180
 TTAATATTTC CCNTCTTAAG TATCAAACGA CCTCTGGANC AAATTNTACC NTN 233

5

SEQ ID NO:4825

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

10

TOPOLOGY:linear

CLONE:HUMGS05735

SEQUENCE DESCRIPTION:

GATCTGACGT TTTCTACGTA GCTTTTGTAT TTNTTTTTTT TTTAAANTTG AAGGACCACT 60

15

GATGAAGCCC TNCCANACCC CTCCGGGTC TAANAAAACG TN 102

SEQ ID NO:4826

SEQUENCE LENGTH:277

SEQUENCE TYPE:nucleic acid

20

TOPOLOGY:linear

CLONE:HUMGS05736

SEQUENCE DESCRIPTION:

GATCAAGAAA TNTCTCTNCT CCTACATCCA GCTCCTCTAG GGGCAGCCTC CGTCATCCAT 60

25

GCCCTCCAG GACCTCCAC TCACTGCTGT GAGTGCGCCT CACCAGAACC AGTTAAGAGA 120

CAACTATCAA TTNNGGGGAC CCAAATTATA AGGGCCCTGN CCTGTACTGA AGNAAAGGGG 180

NGCACAAGGC CTTAATGGAC ATTGNCTTGT GAAAACGCAN ACATGAATAT GGTGGAGAG 240

CNTGGCTTAG GAGGGTGCA TGGGNGAGNA GNGGCTN 277

SEQ ID NO:4827

SEQUENCE LENGTH:98

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35

CLONE:HUMGS05738

SEQUENCE DESCRIPTION:

GATCCCCTCT CTGCCCCAAG CACTTCACAG CTGGACCCTG CTTACCCTC ACCCCCCTCC 60

TGGCAATCAA TACAGCTTCA TTATCTGAGT TGCATAAA 98

SEQ ID NO:4828

SEQUENCE LENGTH:81

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

45

CLONE:HUMGS05741

SEQUENCE DESCRIPTION:

GATCTGGGAT TTTNTTTT TTTTGAAATG GGAGCTTTT TGTTTACAAG TTCATTAAAA 60

ACTAAAACT GTTCTGTAA A 81

SEQ ID NO:4829

SEQUENCE LENGTH:234

55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05742

SEQUENCE DESCRIPTION:

GATCGATTTC TTTCCTCCAG GTAGAGTTTT CTTTGCTTAT GTTGAATTCC ATTGCCTCTT 60
 TTCTCATCAC AGAAGTGATG TTGGAATCGT TTCTTTTGTT TGTCTGATTT ATGGTTTTTT 120
 TTAAGTATAA AAAAAAGTTT TTAATTAGCA TTCTGAAAGA NGGAAAGTAA AATGTACANG 180
 TTTANTAAAA NGGGGCCTTC CCCTTTAGAC TAANTTTCAG CATGTGCTTT CAAA 234

SEQ ID NO:4830

SEQUENCE LENGTH:130

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05743

SEQUENCE DESCRIPTION:

GATCCACCCA CCTCAGCCTC CCAAAGTNCT GGGATTACAG NCATGAGCCA CCATGCTCAG 60
 NCGTGTGTGT NTGTGTGTAT TATTTATATG TATATGCATA CTATATACAT NTATATATAC 120
 ACTATATAAA 130

SEQ ID NO:4831

SEQUENCE LENGTH:103

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05747

SEQUENCE DESCRIPTION:

GATCTTTAAT CAAGCACTAT GTTAATACTG TAATATCAGA ATACTATGTT GCATTATTTA 60
 AAATGTTCAA ATTGAATAGN TTAANAANGTT TTTAAATNCT AAA 103

SEQ ID NO:4832

SEQUENCE LENGTH:325

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05748

SEQUENCE DESCRIPTION:

GATCCTTGGT GCTGTGTGCC CCACTCCAGT CTGGGGACCC CACTTCANAA GGTAGGGGCC 60
 GTGTCCCGCG GTGCTGACTG AGGCCTGCTT CCCCTCCCC CTNCTGCTGT GCTGGAATTC 120
 CACAGGGACC AGGGCCACCG CAGNGGACTG TNCAGAAGA CTTGATTTT CCGTCCCTTT 180
 TTCTCCACAC TCCACTGACA AACGTCCCCA GCGGTTTCCA CTTGTGGGCT TNAGGTGTTT 240
 TCAAGCACAA CCNACCACAA CAAGCAAGTG NATTTAAGG GGGTTGTGCT TTTTGTGTTN 300
 GTGCTAACGT CTNACTAATT TTAAN 325

SEQ ID NO:4833

SEQUENCE LENGTH:212

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05749

SEQUENCE DESCRIPTION:

5 GATCTGAAGA GAAGCCAGAG TATAATTTNC TACTATTTTC AATACAAAGN TGTGTTTTCA 60
 TTACAATTAG NGGAATATAG GCTTCTGTGA GCTAGCCTGG AAGCAAACAT AATCATTATT 120
 GTNCATTGTT TCTGTGNGAN ACTGTAATGC TGTTCCTAAA TATTGACCTA ACANTAAACT 180
 CTGNNGGAATT CATGCTTGTN ACTGGNTGGA AN 212

SEQ ID NO:4834

SEQUENCE LENGTH:284

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05751

15 SEQUENCE DESCRIPTION:

20 GATCTGGCCT TATGCCCAGG CCTGGGCCCT CAGAAAGTAA GAGCTCTGGG AAAGAACCCA 60
 AGGAGTTGGG GGAAGGAGAG AGCCCCAAAT AAACACAACC TGAGACCCCA AAGTTTAAAG 120
 GTGNAAAANG NACCAAAGAC CAGNCACAGT GGCTTCCGCC TGTAAATCCA NCATTTTGGG 180
 NGGCCAAGGC GGGAGGACTG CTGAGGCCA GAAGTTGGNG ACCATGCCTG GGCANCGTGG 240
 NCACCTCATT TTTACTACAA ATNAAANAAN CTTCGCTGNG TAAA 284

SEQ ID NO:4835

SEQUENCE LENGTH:60

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05752

SEQUENCE DESCRIPTION:

30 GATCCTACTG ATGAAATTCC CACTAAAAAG TCAAAGAAGC ATAAAAAGCA CAAAAACAAA 60

SEQ ID NO:4836

SEQUENCE LENGTH:144

35 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05754

SEQUENCE DESCRIPTION:

40 GATCAAAAAA TTGAATGATA AATATGAATG GCTTTTCAAT TCTGTGGACT TTGTACCATT 60
 TGGCTTCACC TTGTACTGCA AGATGAATTT GTAAACAAAA CAAAATTGGN CTGTCTGGAA 120
 AGCTAAAGTN CTGAAATATG GAAA 144

SEQ ID NO:4837

SEQUENCE LENGTH:138

45 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05755

SEQUENCE DESCRIPTION:

50 GATCACAATG ANGGCCAAGC TTGCNCGCNT AGAGGCCCCAG GAGCAGGCCT TCCTGGCTCG 60
 TTTCAAAGGC CAGGACCCTG GGGCCCTCA ACTGCAGTCA GAGAGCAAAG CCCTTAATAA 120

55

ATATTNACA TCCTTAAA

138

SEQ ID NO:4838

SEQUENCE LENGTH:84

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05756

SEQUENCE DESCRIPTION:

GATCTTGTTT ACATCTTGCT CACTGCTATA TTCTCATTGC TGAGCACACA GTTGCACTC 60
 AATAAATTTT GAATGAACTC CAAA 84

SEQ ID NO:4839

SEQUENCE LENGTH:114

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05757

SEQUENCE DESCRIPTION:

GATCACCTNA TGGATGTCGC AATAATACAA ACCAGTGTAC CNCTGACCTN NTCATCAAGA 60
 GAGCTGGGGT GCTTTGAAGA TAATCCCTAC CCCNCTCCCC CAAATGCAGC TGAN 114

SEQ ID NO:4840

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05758

SEQUENCE DESCRIPTION:

GATCTGCACT ATNAACTTTG TGAAGAGTTT CTCCTAAAAA CTTTAAGTAA AATGTTAATG 60
 GTAGCTTTGA TAACATCAAA TTCTAAGGGA GAAAAAACA ATATTAAACC GCCCAAGCAG 120
 TGTGCCCTAG CAGAGGAAAA TGCAACATCT CGCAAGCGCT GCTGTAACGC CTTCAAGGAGT 180
 CACTGATTCA GCACTAGTTT CCGGCTGTGA AACTCATCT TTCATTTTNN CCGTGGNTNG 240
 GCGCTTTTNT TANTNGTNGT CCTAATGANA TTTCTGNCAT TGTCATATAC AANCNGNTGAA 300
 TATCATTAAA ANTTTTNNAN TNN 323

SEQ ID NO:4841

SEQUENCE LENGTH:121

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05759

SEQUENCE DESCRIPTION:

GATCAAAAAA ACGTTCTTTG AAGAGCTGGC AGTAGAAGAT AAACAGGCTG GGGAAGAAGA 60
 GAAAGTNCTC AAGGNGANGG AGCAGCAGCA GCAGCAACAG CAACAGCAGC AGCAANANAN 120
 N 121

SEQ ID NO:4842

SEQUENCE LENGTH:351

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05763

SEQUENCE DESCRIPTION:

GATCTTCACC AGCTGCTCGT GGTGGCTCGG TGTCTGTCTC TCAGTGCTGG TCAGACAACG 60
 CTGTCAAGAG ANCGATGGCT GAGAGCAAAG CAGCTAGAGT CTTTAAGAAG AACGAGGCTT 120
 CAGCAGCAAA AATGTGTGAA TGGAAATNAA CTTTAAAGAT GTAATACCTA TGAAGAGTAA 180
 TGGGCAAACT GTAGCCACAT AATTGTAAAA TTCAGATATT CATTATACCT ACATTGTTTT 240
 ATAGGTAATT TCTATCACAA ACCAGTGACA TTCCTGAAA TCANGCCTGG TAACACCTGA 300
 TGTATATATG ATATTCAGTA AGGACTTTTA CCTTACTGAT TTCATGGNGN N 351

SEQ ID NO:4843

SEQUENCE LENGTH:71

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05765

SEQUENCE DESCRIPTION:

GATCTGAATT TCCCATGCT TCCTGGTTTT NATATGTTT TTGACAAATA AAGCTGATT 60
 AAATCTCTAA A 71

SEQ ID NO:4844

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05767

SEQUENCE DESCRIPTION:

GATCTTTTC TTTATCTCCC TTCCCTTCC TAAGTCCCAT TTCTGGTCA TAAATATTGC 60
 ATTATTCACA CTTTCAAACT GTGTATTTTC TTACAATAAA AAATGATGAA A 111

SEQ ID NO:4845

SEQUENCE LENGTH:202

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05768

SEQUENCE DESCRIPTION:

GATCTCACCA CCCACCTGGC CTCGCAGGGC GTTCATCTCC TCCTCGTGGT TCTTCTTCAG 60
 GTAGGCCAGC TCCTCCTTGA GGTTCCTCAAT CTGCATCTCC AGGTCGGCTC TGGCCAGGGT 120
 CAGCTCATCC AGCACCTGC TTCAGTCCCT TCCCATGCT TCCTTGCCTG ATGACAATAA 180
 AGCTTGTTGA CTCAGCTATA AA 202

SEQ ID NO:4846

SEQUENCE LENGTH:262

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05769

SEQUENCE DESCRIPTION:

GATCANAACC CTAGCGCCTT TGGTCCTAAG AATGGNAGGC TGCCTTCNT CCCAATCTCC 60
 CTGCCAGGGC CCACAGCGTG GCCCTAGCCC TCCCCTCCCC GGAATGTAGA ACGGGGACCC 120
 TCGCAGGGTT GGGGCGGGGG CTGATACTCC TNGGNCCCTC CCTACCCTGC CCTGTGTGTT 180
 GGCTTTNTGG CCGTCCAAGT GCCAATTGGG TTTTNGCCCA AATAAGGGCT GGTATTTNTN 240
 CTNTGTNCTT GGAGGTGNGN TN 262

SEQ ID NO:4847

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05770

SEQUENCE DESCRIPTION:

GATCTGTATG TNAGGCACCC ATAACAGTAG TTTCCCTGT NAGTCGTCTT CACACATGCT 60
 GTTTTCTCTG CCTGGCTCTC TCTTCCCCTC CTTACCTGGC CAGTCCTGTT TATCATCAGG 120
 CCTGTNTTG GATATNACGT CCTCTGGGAA GTCTTCTGGG NCCCTCTAAC CTAGGACCCT 180
 CATTACGGN TCTCATAGNA CAGTCTACTG NTTTGTACGG AATTCTAAGT ATTCNNGTG 240
 GNACTNAAATN 250

SEQ ID NO:4848

SEQUENCE LENGTH:227

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05772

SEQUENCE DESCRIPTION:

GATCATTCTT CAATTAGGAC ACAAACCAGA CAGGTTTAAT AGCGAATCTA ATTTTNAATT 60
 CTGACCATGG ATACCCATCA CTTTGGCATT CAGTGCTACA TGTGTATTN ATATAAAANT 120
 CCCATTTCTT GANGATAAAA AAATTGTNAT TCAAATTGTT ATGCACAGAA TGTTTTTGGT 180
 AATATTAATT TCCACTAAAA ANTAAANTGT NTTTAAAGGG ANNNGAN 227

SEQ ID NO:4849

SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05773

SEQUENCE DESCRIPTION:

GATCTAAATA TAAGAGCAAA AACCATAAAG CATCTAAAAG TAATTGAAGG AGAAAACTTT 60
 AGTGCCTTTT GTNCTGGCCA AGATTTTTTA AAGAGGACAT AGAAGTCAGG AACTATAAAA 120
 GAAACAATTT TAAATTTTNC TTTATCAAAA TAAAAGCCA TAGACCGGGA TAANNCATTT 180
 GCAANATATA TNTCTGACAA AGTCTTGAN TCAAGANTAT GTAAANANCNG N 231

SEQ ID NO:4850

SEQUENCE LENGTH:128

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05774

SEQUENCE DESCRIPTION:

5 GATCAGCCTG AACAAACATAA TAAGACCCTG TCTCAACAAA AAATACAAAA ATTAGCTGGG 60
TGTGGTGGCA TATGCCTGTA GTCCCAGCTA TTCAGGAAGC TCCATTGCAA TCTAGCCCCG 120
GTGACAAA 128

SEQ ID NO:4851

SEQUENCE LENGTH:350

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05775

SEQUENCE DESCRIPTION:

15 GATCCTTCCT TCAACCCCAA GGCCAGCTCC CATCTCATTT CCAGAAAGGC TCATACCTGG 60
CTTGCCAGGGA AGCATCTGTC TTGTCAATCC AGGTGCCAGA ATCCTCTCAG AGTCATTGAA 120
GGGTGTTTAC CCATCCCACC CAAGGCTTGG CACTGCGCA GTNTCTTAGC AGGGTCTTGT 180
GAGGGCTGGG GGCATCCAGG CACTCAGAAG GCAAAGGAAC CACCCTACCC ATTTGGCCTC 240
20 TGGAGGGGGC AGAAGAAAGA AAGAAACCTC ATCCTATATT TTNCAAAGCA TGGGGGTTCT 300
NGCATTTAGC TCTGGNGGGT GANCCANTGT GCTTNCCTGN TTAAGTGTCN 350

SEQ ID NO:4852

SEQUENCE LENGTH:355

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05776

SEQUENCE DESCRIPTION:

30 GATCTCAGTT TCCCTCACTC AGGAACCTG TTTCTAAAGT CTTCAGTTAA GTTTNAGTTT 60
ATNACTGAGT GGCCTGTA CTGACAGCTG AATGGGCCTG ACGGGCAAAT CCATCCCTCT 120
CTCCCTCACA GTTCCAGGAG CGGCTTCCCT CGTCTCCCT TACTCCACAG GGAGCCTCCC 180
TTGCCAGGAC CAGGGCTGCG ACGGCCATGC TGGGGCAGGT GAGTGCTCTG TTAGCTGCTC 240
35 CCAGTGCTGT CCNAGGCTG CAGTTCTGGT CCNNGGGGTG TNAGGGTAGG GAAGGGTGCA 300
CTTGAAGGAN GGTGGTTCAA TNTTGGGNTN CCTTAACGTT TATAGTCTNN ACAAN 355

SEQ ID NO:4853

SEQUENCE LENGTH:81

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05777

SEQUENCE DESCRIPTION:

45 GATCCAGGAG TTTAAGGTTA CAGTGAGCTA TGACCGCTAC TNACTCCAG CCCAGNCAAC 60
AGAACAAGAC CCTGTTTCAA A 81

SEQ ID NO:4854

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS05778

SEQUENCE DESCRIPTION:

5 GATCCTCCGT AACATTNCNA GACCAGANAG AACATCCAGA AATCCCTGGN TGGAAAGCTCA 60
GGCCCCGGGG CCTCCAGCGG CACCAGCGGA GACCACGGTN AGCTCGTCGT CCGGATTGCN 120
ACGATTAAAG ACTGAN 136

SEQ ID NO:4855

10 SEQUENCE LENGTH:108

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05779

SEQUENCE DESCRIPTION:

15 GATCAAAATAT TTTTNATTAA CCTATATAAA GAATTTGACT GCTTATGATT CAATACATAT 60
GATTTAATAA AATAGATTGC ATTTTNNAAA ATAAAGAATG ATTNAAAA 108

SEQ ID NO:4856

20 SEQUENCE LENGTH:362

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05780

SEQUENCE DESCRIPTION:

25 GATCAACCTC TGATTTTACA TCATGATGTA ATCACCCTG GAGCTTCACT GTTACTAAAT 60
NATTAATTC TTGCCTCCAG TGTCTATCT CTGAGGCTGA GCATTATAAG AAAATNACCT 120
CTGTCCTTT NCATTGCAGA AAATTGCCAG GGGCTTATTT CAGAACAAC TCCACTTACT 180
TNCCACTGGC TCTNAACTC TCTAATTAT ANGTGTTGGT GAACCCNCAC CCAGGCAGTT 240
30 ATCCATGAAA GNACAAGTGG ACTAGTNCTA TGNNGTACAA AGGCCTGTAT CNTCTGTNG 300
ATGGATTCC TGGTGCTCTT NGCTTGTTTG CAAGTTGCTT AANTTAAAGG CAGNTNTTIN 362
TN

SEQ ID NO:4857

35 SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05781

SEQUENCE DESCRIPTION:

40 GATCCTACCG GAAACCAACC TGTTTACTGT ACTGTTGTAA ATATCATGCC CTTTATATCC 60
TGTATATTGG CTTCTTTTAA ATAAAGTGAA ATGTCTTAGA AA 102

SEQ ID NO:4858

45 SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05782

SEQUENCE DESCRIPTION:

50 GATCTAAACT TTATGCTGCA TAAATCACTT ATCGGAAATN CACATTTTAT AGTGTGAAGC 60

55

ACTCAANNNTN TAAACCTTAT TATCTAAGGT AATATATGCA CCTTTCAGAA ATTTNTTTTC 120
 GAGTAAGTAA AGCATATTAG AATAATTGTG GGTGACAGA TTTTAAAAAT AGANTTTAGA 180
 GTATTGGGG TTTN 195

SEQ ID NO:4859
 SEQUENCE LENGTH:210
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05783

SEQUENCE DESCRIPTION:
 GATCCCTTTG AAATNTTTT TTTGTTTGT TGTTTAAATC AAGCCTGAGG CTGGTGAACA 60
 GTAGCTACAC ACCCATATTG TGTGTTCTGT GAATGCTAGC TCTCTNGAAT TTGGATATTG 120
 GTTATTTTT ATAGAGTGTA AACCAAGTTT TATATTCTGC AATGCCANCA GGTACCTATC 180
 TGTTCCTAAA TAAANCTGTT TACATTCAAA 210

SEQ ID NO:4860
 SEQUENCE LENGTH:139
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05784

SEQUENCE DESCRIPTION:
 GATCTTTGTT TGTCTGAACA GGTATTTTAA TACATGCTTT TTGTAAACCA AAAACTTTTA 60
 AATTCTTCA GGTTCCTAA CATGCTTACC ACTGGGCTAC TGTAATGNG AAAAGNATAA 120
 ANTTATTAA TGTTTTAAA 139

SEQ ID NO:4861
 SEQUENCE LENGTH:150
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05785

SEQUENCE DESCRIPTION:
 GATCCTGAAA GAATAATTGG TGCCACAGAC AGCAGTGGAG AATTGATGTT TCTCATGAAA 60
 TGAAAAGNTT CAGATGNGGC AGACTTGGTG CTGGCGAAAAG AGGCAAATAT GANGTGCCT 120
 CAAATTGTAA TTGCTTTTAA TGNNGNGNGN 150

SEQ ID NO:4862
 SEQUENCE LENGTH:155
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05787

SEQUENCE DESCRIPTION:
 GATCGCAGAT TTNTNTAGAA ACACGGATGT NCATGTCCAG ATTCCCTTTT NCAGGTATTA 60
 AAAATAATTA AAAATAGTCC TGCCTGAGGT TGCAGTGAGC CGAGCTTGCA CTA CTGCACT 120
 CCAGCCTGGG TGACAGAGTA AGACTCCATG TCAAA 155

SEQ ID NO:4863

SEQUENCE LENGTH:262

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05789

SEQUENCE DESCRIPTION:

GATCTGTACA ACTGATTTTA AAAAAATGCT AAAAAAGCC CCAAAGCATA TAATCTCTAC 60
 TCCTTACAGT CTCTAGAATT AAATGTACTC ATTTAGACAA CATATTAAAT GCATATTNA 120
 GCCACTTTAG AGAAACCTCA TAGGCACAGA GTTCCAAGN TTAATTTTAA GNATATCTTC 180
 ACGAACTTGA CCCTCCTACT CCACATTGCA NCATTTCNT CAGNCAGCAT TTNAATTCCN 240
 GTATTATGTN TNTNGCAANT NN 262

SEQ ID NO:4864

SEQUENCE LENGTH:232

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05790

SEQUENCE DESCRIPTION:

GATCAAGAAG GCCACTGGTG TGCAGGTGTN AGGCTCCTAC AGGCCCACTC TCTTCAGCAG 60
 CCACCCGGCC CTCCTCCAG CACCCGTTTT AATCCACAG AACACGGGA ACGTTACTGA 120
 CTCTGGTGCC TTATCTCGAA GGGACCAGAA GTGCTGCGTG TTCAGGCCAT CNNTGGCTGT 180
 NTTCTGTCT CTCCTGTCTG TCCACCTACT ACTNNTNCT NTACTTTANC NN 232

SEQ ID NO:4865

SEQUENCE LENGTH:76

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05792

SEQUENCE DESCRIPTION:

GATCAGAGCC GACACCAGAC GTGATTAGCA GGCGCACAAN ATTCAATTG TTAAATGAAA 60
 TTGTATTTG CCCAAA 76

SEQ ID NO:4866

SEQUENCE LENGTH:80

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05793

SEQUENCE DESCRIPTION:

GATCTCTTGG GCCCAGGACT GTTGATGCCT TTNAGTTTG TATCAATAA ACTTTTTTTG 60
 TCTGTTGATA ATATTTTAAA 80

SEQ ID NO:4867

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS05794

SEQUENCE DESCRIPTION:

GATCCATGCA TTATTTTCCT AGCTTCCTGC CTTGCTCCCT ATTCACITTA CACTGTGAAA 60
 5 GGTGGGGGGT GAGTCCCACT TGAGCGCTTC CTGTTGAATA AAGCAGGCAC TTGACCTGGC 120
 TGTAGCCTAG GTCTTGAGTG AACCCCAAA 149

SEQ ID NO:4868

SEQUENCE LENGTH:209

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05795

SEQUENCE DESCRIPTION:

GATCATGTCT GTACATTGTG TAATGAATGA AAAGCACATA AATNTAATCT ACTTTGAACT 60
 10 TTGTAAAAAT AATGTGTGGA GGCTATTCTT GTTCTCCAT CTCAGTCCT GTGTGTGCAC 120
 GTGTGTGCAA GTGCACATGT GTGTGTGTAA TAACACATTG TAAAGANCAG AAATNACTTT 180
 AAAAAATAAA CAGAAATGGA GACCTGAAA 209

SEQ ID NO:4869

SEQUENCE LENGTH:335

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05796

SEQUENCE DESCRIPTION:

GATCCGNCCA CCTTGACCTC TCAAAGTGCT GGGATTACAG GCATGAGCCA TCACGCCCGG 60
 20 CCACGCTGTT GGTTCCTAAT GACACAGCTT ANCTTTATTG TGAAAAGATT GCAGCAACAA 120
 30 ATGAGATTTT ACCTGTATTT GTTAAAAATG CTTATCCTTG TCTAAGACTG GCAACATAAG 180
 CAGTCTTNG GCTTCTATGC CAATGGNCAC TAGGCAGTAA TACATGTGCA GTGCTANATA 240
 GAAAAATATT GAGTNAGGGT GTACTNAGGG AAGTTCTCAA TCTTNCCTT NTCANTNTCT 300
 TCTGTAATAG TAACCTTNA TAACATGNGG ATTCTN 335

SEQ ID NO:4870

SEQUENCE LENGTH:207

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05797

SEQUENCE DESCRIPTION:

GATCTTTCTG CAGGAAATAG TCACTCATCC CACTCCACAT AAGGGGTTTA GTAAGAGAAG 60
 30 TCTGTCTGTC TGATGATGGA TAGGGGGCAA ATCTTTTCC CTTTCTGTT AATAGTCATC 120
 45 ACATTTCTAT GCCAAACAGG AACAATCCAT AACTTTAGTC TTAATGTACA CATTGCATTT 180
 TGATAAAATT AATTTTGTG TTTCAAA 207

SEQ ID NO:4871

SEQUENCE LENGTH:208

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS05798

SEQUENCE DESCRIPTION:

GATCTGTAC GGAAGGCGTC CTTTTTCCTT GTAGCTAACG TTAGGCCTGA GTAGCTCCCC 60
TCCATCCTTG TAGACGCTNC AGTCCCTACT ACTGTGACGG CATTTCATC CCTCCCCTGC 120
CCGGGAAGGG ACCTTGACAG GACCTCTCCC TCCAAAAAAA GAAAAAAGA AAAAGANAGA 180
AAAANTAAAT GAGGAAACGT GTTNCAA 208

SEQ ID NO:4872

SEQUENCE LENGTH:84

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05799

SEQUENCE DESCRIPTION:

GATCAGACCA TAATGTTACA TTATTATCAA CAATAGTGAT TGATAGAGTG TTATCAGTCA 60
TAACTAAATA AAGCTTGCAA CAAA 84

SEQ ID NO:4873

SEQUENCE LENGTH:337

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05801

SEQUENCE DESCRIPTION:

GATCCTGGCC GAGGTGAGGA ACAGACAGGG GGGGTCTAGA TTCTAAGGGG GTTGGTGGAT 60
ATTGGGCAAG GCAGGAAACC TCTGGAGACC TCATTTTCTC CATGGGGAAG ACAGCCATGC 120
TCTTCAGGAG GAGACTCCAA GGGCAAAGNA GGGTGTCTTG GCTGTNCTTG AAGGCGAAAC 180
CCTGCCATAT CCCAGTGCC AGTCCCCTCA GNCTGTGGTG GCCTTGATC CTGACTGGAT 240
GTTCTCAGCC CNTTGTCTG GGCAAGAACC CAGAGCTCCC CAGTNTGGAT ACTTATTAA 300
CCTNTTTGGA GNCNCAAATA NAAAAAANA AANNAGN 337

SEQ ID NO:4874

SEQUENCE LENGTH:329

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05804

SEQUENCE DESCRIPTION:

GATCCAGGGG CTGATTGGCA GCGTGGAGGA GCAGCTGGCC CAGCTTCGCT GCGAGATGGA 60
GCAGCAGAAC CAGGAATACA AAATCCTGCT GGATGTGAAG ACGCGGCTGG AGCAGGAGAT 120
TGCCACCTAC CGCCGGCTGC TGGAGGGAGA GGATGCCAC CTGANTCAGT ACAAGAAAGA 180
ACCGGTGACC ACCCGTNAAG TGCCTACCAT TGTGGGAAGA GGTCCAGGAT GGNAAAGGTN 240
AATCTTCTTC CGTGNAGCAN GGTNCAACCA GACCAACCGT TTGAGGGACT TANGTTACCN 300
NGNGCCGGGC CAACCAAGG AGGGNNTN 329

SEQ ID NO:4875

SEQUENCE LENGTH:142

SEQUENCE TYPE:nucleic acid

EP 0 679 716 A1

TOPOLOGY:linear

CLONE:HUMGS05807

SEQUENCE DESCRIPTION:

5 GATCACTTGC TTTTATGTCC ACTTTTNNAG TGGTACTTAA ATGTAAAGTA ACAACCTGAA 60
TTGAGTCATT GCTTTCTGAA GGAATCATTG TCCTTTCTCC AGTTTTTGTN CCAGAATAAA 120
AGGAAATATT TTAAGGCCA AA 142

SEQ ID NO:4876

SEQUENCE LENGTH:331

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05808

15 SEQUENCE DESCRIPTION:

GATCCTNCAG CACAGGAATT CTCAAGACCT GAGTATTTT AATAATAGGA ATGTCCACCA 60
TGAACCTNAT ACGTCCGTGT GTCCAGATG CTGTCATTAG TCTATATGGT TCTCCAAGAA 120
ACTGAATGAA TCCATTGGAG NAGCGGTGGG GNACTAGCCA GACAAAATT NAGANTACAT 180
20 AANCAACGCA TTGCCACGGN AACATACAGN GGATGCCTT TCTGTGATT GGTGGGATT 240
TTTCCCTTT TATGTGGGAT ATAGTNGTTA CTTGTGACAN GTATAATTT GGAATAATTN 300
CTATTAAATA TCANCTCTGA NGTACTNGT N 331

SEQ ID NO:4877

SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05810

30 SEQUENCE DESCRIPTION:

GATCATGCCA TTGCACCCA GCCTGGGCAA CAACTTAACT TTTTGAAAC TCTGTCTCAA 60
A 61

SEQ ID NO:4878

SEQUENCE LENGTH:81

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05813

40 SEQUENCE DESCRIPTION:

GATCCTCTGG ACACGTAACC TATGTCAGNC ACTACATGAT GACTCAAGGC CAATAATAAN 60
GCCATTTCTT ACCTGCACAA A 81

SEQ ID NO:4879

SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05814

50 SEQUENCE DESCRIPTION:

GATCCANAGA GGACCCCGN CCCCAGAGAC TTGGTTTGG CTCCAGCCTT CCCCTGGCCC 60

55

CGTGACACTC AGGAGTTAAT AAATGCCTTG GAGGAAAACA AA

102

SEQ ID NO:4880

SEQUENCE LENGTH:66

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05815

SEQUENCE DESCRIPTION:

GATCAAAAGG TCTCAGATGA TGATAAAGAA AAGGGAGAGG GAGCTCTTCC AACTGGGAAA 60
TCCAAA 66

SEQ ID NO:4881

SEQUENCE LENGTH:287

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05816

SEQUENCE DESCRIPTION:

GATCTCTAGA GTCCATTAAG AGCAAGCTAG ATTGAGAGCT CTTGGAGGGC AGGGACTGGG 60
CCTAGCTCAT GGTTCACAGC TCTTGAGGGT GACTGCACAG TGGACTCAGT CAGTCATGGC 120
TGAGTTGTGT TGGCTTNATT ATCTCTAGAA TGTAGTTCTC CATTCAAATG CAAATCAGCC 180
TGGNNGGNTC ACCTGTAGTA AAGGGGGTTT CTACCTNGNG GATGGAAANA GNNNTCTTAG 240
GNACCTTCTT TGGGCCTCCA GNACTTATTT TNGATATCCC NTTATGN 287

SEQ ID NO:4882

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05817

SEQUENCE DESCRIPTION:

GATCATACCA TTGCACTCCA GCCTGAGTGA CCTGACTGAG ACTGTCTCAA AAAGNGTAAA 60
ANATAAAAAAT TAAA 74

SEQ ID NO:4883

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05818

SEQUENCE DESCRIPTION:

GATCTNACTC CAGCAGAGTC TGTNCCAATN TGGGGTGAGC AGGGCCCCTG CCATGGAGCA 60
GCAGGAATTT NAGGGATGGA GCAGGTAAAA GAATGGGAAA CATAAA 106

SEQ ID NO:4884

SEQUENCE LENGTH:96

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05819

SEQUENCE DESCRIPTION:

GATCTTAGTG GTGAAAGTAT GTGTAACCAT GTGATGGTTA AAACANGACT TACAATNCCT 60
 5 AAATGTGTAA CTGAGAATAA AACGTACTCT NTTAAA 96

SEQ ID NO:4885

SEQUENCE LENGTH:63

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05820

SEQUENCE DESCRIPTION:

GATCCNAAGN CTCCGGGCAG CCGTTATCCC GTGGTTTAAT AAAGCTNCCG CGCGCTCACC 60
 15 AAA 63

SEQ ID NO:4886

SEQUENCE LENGTH:61

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05821

SEQUENCE DESCRIPTION:

GATCCTGCTG TGTGTCTGT TCCATGTTCC GGTTCATCC AAATACACTT TCTGGAACAA 60
 25 A 61

SEQ ID NO:4887

SEQUENCE LENGTH:274

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05823

SEQUENCE DESCRIPTION:

GATCTCCTTG TCAGGAGCAC CTAAGAACTG GCATGACTCT ACACCCTNTC TCCTTCTNCA 60
 35 ATGACCTCGT GTCAAGATGG CAGACCTGCA GAGATGAATT TGCCTNGATA CCTGAGTCAC 120
 CAGNGNGGAG GAAACTCCCA TTNGACATGC ATCACACTCC ACATATGAAA CCCTNCTTTT 180
 GCTGCACTGT CACTGGGGGN TAGGGGTTAT TACTCACTGC AACTTAGCCT AGCATTAAGT 240
 40 TGNTTTGACT NATNCANGTT TCAGTAAANG TCGN 274

SEQ ID NO:4888

SEQUENCE LENGTH:268

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05824

SEQUENCE DESCRIPTION:

GATCTGTGTT GGTTCCTTAG ATTGCTAGCT TTTCTCCAG GGGACCACAG CAGGTGAAGC 60
 50 TCAAGAGCGC ATGGCTCTGC TAATAGTAAA TTGTTTTCAG GGCCTTGTC AGCTGAGAGC 120
 TTCATGTCCA CCAGATTCTG AGAGGTGTCA GCAGCACTTT TTTTNTNATT TGTNGTTNGG 180
 TTTCCNCCCG GTTATCGGAC CATGGGCTNA GCTCAGGCAC TTGCTGTAGG AGACTNGNNA 240

TTNCTGTAAA GGANNGGTNA TTTANCCN

268

SEQ ID NO:4889

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05825

SEQUENCE DESCRIPTION:

GATCAAACTT GGTCTGGGTA TTGATGAAGA TGACCCTACT GCTGATGATA CCAGTGCTGC 60
 TGTAAGTAA GAAATGCCAC CCCTTGAAGG AGATGACGAC ACATCACGCA TGAAGAAGT 120
 AGACTAATCT CTGGCTGAGG GATGACTTAC CTGTTTCAGTA CTCTACAATT CCTCTGATAA 180
 TATATTTTCA AGGNTGTTTT TCTTTATTTT TGTNAATATT AAAAAGTCTG TATGGCATGA 240
 CAACTACTTT AAGGGGAAGA TAAGATTTTC TGTCTACTAA AGTGATGCTG TGGTACCTTA 300
 GGCACNAAG CAGNGCTAGT ATN 323

SEQ ID NO:4890

SEQUENCE LENGTH:66

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05826

SEQUENCE DESCRIPTION:

GATCTAAGAG TATGGCTAAA CATCTATATA TGCAATCTAT TAAAAGAACT TAATTCGGCT 60
 ATTAAA 66

SEQ ID NO:4891

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05827

SEQUENCE DESCRIPTION:

GATCTCTGGA GCTCAAGAGG TTGAGGCTGC AGTGAGCCGA TGTGCCAGTA CACTGCAGCN 60
 TNGGTGACAG AGCAAGACCC TGTCTCAA 89

SEQ ID NO:4892

SEQUENCE LENGTH:344

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05829

SEQUENCE DESCRIPTION:

GATCGCCACT TACCGCAAGC TGCTGGAGGG CGAGGAATGC AGACTCAGTG GAGAAGGAGT 60
 TGGACCACTC AACATCTCTN TTGTCACAAG CAGTGTTTCC TCTGGATATG GCAGTGGCAG 120
 TGGCTATGGC GGTGGCCTCG GTGGAGGTCT TGGCGNCGGC CTCGGTGGAG GNCTTGCCGG 180
 AGGTAGCAGT GGAAGCTACT ACTCCAGCAG CAGTGGGGGT NTCGGCCTAG TNNNNNGGGC 240
 TCAGTGTGGG GTGCTCTTGG CTTCACTGCA AGCAGTAGCC NGAGGGCTGG GGGTGGNCTT 300
 NTGGCANTGG CGGNTNTAGC AGNTCCAGCG TCAAATTTN CTCN 344

SEQ ID NO:4893

SEQUENCE LENGTH:342

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05830

SEQUENCE DESCRIPTION:

GATCAGGNAG CCTCCTGATG CCAGAACACC TNAGGCAGAG CCCTACTCAG CTGTACCTGT 60
 CTGCCTGGAC TGTCCCCTGT CCCCGCATCT CCCCTGGGAC CANCTGGAGG GCCACATGCA 120
 CACACAGCCT AGCTGCCCCC AGGGAGCTCT GCTGCCCTTG NTGGCCCTGC CCTTCCCACA 180
 GGTGAGCAGG GCTCCTGTCC ACCAGNACAC TNAGTTCTNT TCCCTGCAGT GTTTTCATTT 240
 TATNGGGGNC AAACATTTTG CCTGTTTCT GGTTCAAAC ATGATAGTTG ATATGAGACT 300
 GAAANCCCTG GGTGTGGAG GGGAAATTGG GNTNAGAGGG GN 342

SEQ ID NO:4894

SEQUENCE LENGTH:138

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05831

SEQUENCE DESCRIPTION:

GATCCTGGAC TTTNCCCTCA GCAAAGATGC CTCNTGGTG GTGACCACGT CAGGAGACCA 60
 CAAAGCGAAA NTNTTNTTT TCCAAAGGCC TGACCGTTAA TGGCTGCAGC CCCTGCCTGT 120
 TTGTNTGGTG TTGAGGGN 138

SEQ ID NO:4895

SEQUENCE LENGTH:109

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05832

SEQUENCE DESCRIPTION:

GATCCACCCG CCTCAGCCTC CCAAAGTGCT GGGATTACAG GTGGGAGCCA CAACACCCGG 60
 CCATGAATTA ACTCCGTAA AAAATAAACG TATACATTCT GTGAGCAAA 109

SEQ ID NO:4896

SEQUENCE LENGTH:274

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05833

SEQUENCE DESCRIPTION:

GATCGGTTTC GCCATCATGA CGCAGTGTCT CCCAGTGGCC CTGTTCTCCC TGGTGGGCTT 60
 CACCCAGATG ACCATNTGGG CCAAGGGCAA GCACCGCAGC TACCTGAAGG AGTTCCGGGA 120
 CTACCCGCCC CTGCGCATGC CCATNATNCC CTTCTGCTC TGAGCGCTCA CCCCTGCTGA 180
 GGCTCAGCCC CTNAACCCGG TGGCATTCTG GGGGAGGAGT GGGGCCACACA GNTCTCCAGC 240
 ACCCGGAATA AAGCCCGNCT GCCCCAGTCG GAAA 274

EP 0 679 716 A1

SEQ ID NO:4897

SEQUENCE LENGTH:343

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05834

SEQUENCE DESCRIPTION:

GATCTTGCTG GATGTGAAGA CGCGGCTGGA GCAGGAGATT GCCACCTACC GCCGCCTGCT 60
GGAGGGCGAG GATGCCACACC TTTCCTCCCA GCAAGCATCT GGCCAATCCT ATTCTTCCCG 120
CGAGGTCTTC ACCTCCTCCT CGTCCTCTTC GAGCCGTCAG ACCCGGCCCA TCCTCAAGGA 180
GCAGAGCTCA TCCAGCTTNA GCCAGGGCCA GAGCTCCTAG AACTGAGCTG CCTCTACCAN 240
AGCCTNCTGC CCACCACTG GCCTCACCTC CTGAAGGNCC GGGTCAGGAC CCTGCTCTNC 300
TGGNGNAGTT TCCCAGGTAT NTTCNNTGGT TCCTGTTGGT GAN 343

SEQ ID NO:4898

SEQUENCE LENGTH:338

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05835

SEQUENCE DESCRIPTION:

GATCAGNAGC CCCCAACACA GGCAAGTCCA CCCATAATA ACCCTGCCAG TGCCAGGGTG 60
GGCTGGGGAC TCTGGCACAG TGATGCCGGG CGCCAGGACA GCAGCACTCC CGCTGCACAC 120
AGACGGCCTA GGGGTGGCGC TCAGACCCCA CCNTACGCTC ATCTCTGGAN GGGGCAGCCC 180
TGAGTGGTCA CTGGTCAGGG CAGTGGCCAA GCCTGCTGTG TCCTTCCTNC ACAAGGTCCC 240
CCCACCGTTC AGTGTACGCG GGTGACGTGT GTTCTTTGA GTCCTTGTAT GANTAAAAGN 300
CTGGAACCTN ANAAAAAGTG NGNNGNGGTN TNTGTAN 338

SEQ ID NO:4899

SEQUENCE LENGTH:356

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05836

SEQUENCE DESCRIPTION:

GATCAGCCCC TGACTTTNTT AAAAGATATC AGAAGTGTCT TGGAGCCAAC TAGAGGCAGG 60
GTCATCCTTG CCCTTNTCCT CCCCTTTCAT CCCTATGTGG AAAACGTAGG TGGCAAGTGG 120
GAGAAACCAT CAGAAATTTT GGAAATCAAA GGACAGAACT GGAAGANCA AGTGAATAGT 180
CTGCCTGANG TTTTCAGAAA ANCTGGTTTT NTTATCGAAG CTTTCACCAG ACTACCATAC 240
CTGTNTGAAG GCGACATGTN TAANGNCTAC TNCGTTCTGG NTGACGCTNT CTTTGTCTCTC 300
AANCCAGTAT AAACACGTGG NGGTCGAAAG CTCAGAGTC CGTACCNTNC TGGATN 356

SEQ ID NO:4900

SEQUENCE LENGTH:111

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05837

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

GATCCCCCAG AAAAGAAAGC TACAGAAGAA ACTGGGGCTC CTCCAGGGTG GCAGCAACAA 60
TAAATAGACA CGCACGGCAG CCACAGCTTG GGTGTGTGTT CATCCTTGAA A 111

5 SEQ ID NO:4901
SEQUENCE LENGTH:293
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05838

10 SEQUENCE DESCRIPTION:
GATCTTAATG GGTTCGATGG TAGGGAATAC GGAAAGGATA CACTGCTAAT ATTGTGTCTA 60
ACAATAAAGC AAACAACCTCG ATGCTGTAAG AAGACAAGCT GTTTGAGCTT TCAAACACAC 120
AGGGGCACAG CACAATTCTAG AAATACCCAG GAGGATTCCT GCAGGCTTAA CAGTTGGCAT 180
15 CGTACTGAAA TGAAACGTGT ATTAACANGA AANTGTCAAA CTTTGGGGA AACAAATTTT 240
CTGTTACTTC CCACCCNACT AAAAGGGAAG ATAAAACCAT CATCACCAGN NNN 293

20 SEQ ID NO:4902
SEQUENCE LENGTH:99
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05839

25 SEQUENCE DESCRIPTION:
GATCTACATA AGGAAAGGAA GAATATTAAA GAAGAAATAA ATGAAGACGA GATAAAATCT 60
TTTTTCTTAA TTATCAAATA AAAGTTTGTT AAAAGTAAA 99

30 SEQ ID NO:4903
SEQUENCE LENGTH:290
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05840

35 SEQUENCE DESCRIPTION:
GATCAGGCAG TTCCTGGACT GTTCCACCAC TCAGAGTGAC CTGTCCCTGT GTGAGGGCTT 60
CAGCGAGGCC CTGAAGCAGT GCAAGTACTA CCATGGTCTG AGCTCCCTGC CCTGAAGAGG 120
TCGGTGCGAGA CTCGGGGGCC AGTCCTGCAC NCACNTCTAC CCCTCGCCGA CAGCCAGACC 180
40 ACAACACCAG ATTGTACCCA GATAGCTGGG ATTGGAAGTN AGGAGGTTTC TCACCCACAA 240
GATAACCCAA GACACAAATG TGCAATTTAA AGTTTATTTT AGACCACAAA 290

45 SEQ ID NO:4904
SEQUENCE LENGTH:68
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05841

50 SEQUENCE DESCRIPTION:
GATCTGCCCC CCTTGGCCTC CCAAAGTGCT GNGATTNCAG GCATGAGGCG CTGCATCAGT 60
TCTGCAAA 68

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EP 0 679 716 A1

SEQ ID NO:4905

SEQUENCE LENGTH:223

SEQUENCE TYPE:nucleic acid

5 TOPOLOGY:linear

CLONE:HUMGS05842

SEQUENCE DESCRIPTION:

10 GATCTGCAAG CNGGAGCCCT CCTACCCGCA GCTTNAGCAC AGNATCATCC AGCCCTGGGG 60
AGGCGCACCC TTAAGCAATA CAGACTGGGC TGAGGCTGAC AGGCAGAAGA CTAACAGAGC 120
GCANTCTGCA CACGCAGGTT CTGGGGCGAC CTCTGGCCCT GGNCATCTCT GNACTAACTN 180
ATCTGAATTA TGGAAAGTGG CAGTNTTGGT CANTAGTTTT NNN 223

SEQ ID NO:4906

15 SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05843

20 SEQUENCE DESCRIPTION:

GATCCGTCCG CTCGGCCTC CCAAAGTGCT GGGATTACAG TCGTGAGCAC CGCGCCCGGN 60
CTGNGGTCAA TTTCTATGT CAAGTGAGTG ACATTATTTT TACAAGTATT TTCTTCTTTT 120
TAAAAATTATA CCAGCAAATA CAGTTAATGC AGAAACCTAA GTAATTTGAG TGTAGCTATT 180
CACAATCTAT GTGAAGNNNN CAAAATAGAA TGACCAGTTT TATTATAAAT TAAGGGGCTT 240
25 AATTTTCTAA AAAAGNANAN AANTGAGCCN TATCTCTGTG TTTTATAATT ATN 293

SEQ ID NO:4907

SEQUENCE LENGTH:65

30 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05844

SEQUENCE DESCRIPTION:

35 GATCACTTGA GGCCAAGTAT TAAAACCAG CCTGGGAAAT ACAGTGAGAC CTTNTNTCTA 60
CCAAA 65

SEQ ID NO:4908

SEQUENCE LENGTH:225

40 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05845

SEQUENCE DESCRIPTION:

45 GATCCTGAAG GCCTTCGAGT ATTTTACTAT TTGGTACAAG ACTTGAAATG TTTNGTNTTC 60
AGTCTTATTG GATTACACTT CAAGATTAAN CCAATTTAAA TTGTATGTNT TCAGGCTGTT 120
TGTATATTN ATTAAGGGAT GGGAGGGGTT ATTTGTCATT TACAGTATTG GGGTTTTNAT 180
GAATGTGAAG CAAACAANAN ANATTTGTNT GTAAACTGTT TTNTN 225

50 SEQ ID NO:4909

SEQUENCE LENGTH:135

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SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05846

SEQUENCE DESCRIPTION:

GATCAGGTTG GGGGGCAGCC CCCAGTCCCT TTCTGTCCCA GCTCAGTTTT CAAAAGACA 60
CTGACATGTA ATTCTTCTCT ATTGTAAGGT TTCCATTAG TTTGCTCCG ATGATTAAAT 120
CTAAGTCATT TGA AAA 135

SEQ ID NO:4910

SEQUENCE LENGTH:225

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05847

SEQUENCE DESCRIPTION:

GATCCAGTAT TTGATGAAAC TCATGAAAGT GGGTGGAGCC CATCTNGCCC CTCCTCTTTT 60
CTAGGACGCA CTATATGTGA CTGTGACTTT CAAGGACATT TGTTGCCAT TTGCTGATTT 120
TTTTGGGAAG TNAATTNCTA ACTNCTTTCA CTGATAAATG NAGAAAAGTA TTGCACCNGT 180
GAAATGCACC AAATGAATNG NGTTTGTAA TTA AAAAAAN NTNTN 225

SEQ ID NO:4911

SEQUENCE LENGTH:281

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05848

SEQUENCE DESCRIPTION:

GATCCCCTAA GGTCTGGCC CAGGNTGCC CAAAGAGAAG CCCAGGATGG TCGGCTGCCT 60
GGGGGCATTG TCACCACGTN GCCATGACGG CTGGTCCNA CAGGNCCAGC TGGGAGGACT 120
GGTTGTGCTG CTGGAGAAGG GCTGGAGAAG GCAATGGCAT GCTGCCGCTT TGCCAGTCCC 180
TAGAAGTCGC GGTGCAGGTG ATGTGTNGNG AGCCGTNCCT NCANTGGGA GGCNCGGAG 240
TNTACTTGTG TGCAGCTGAC CCAAGGGCAG CCACATNTNN N 281

SEQ ID NO:4912

SEQUENCE LENGTH:179

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05849

SEQUENCE DESCRIPTION:

GATCAAAACC CAGCAGAGTG CAAGCAGCAG TGAAGCAGGA TGTATGTGGC CTTGAGGATA 60
ACCTGCACTG GTCTACCTTC TGCTCCCTG GAAAGGATGG ANTTACATC ATTTGGGCAA 120
GGCCTATTTT CAAGGTTTNT TTGGTNTGNT TGGNTNGCTT GTTTTGGNT TNTGGCAGN 179

SEQ ID NO:4913

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05850

SEQUENCE DESCRIPTION:

5 GATCGAGGGC TGGGNACCCC GGTGTNAGCA GGATGGGGCC CTGCCCTCCC GTGGNAGTTG 60
 TGGACTCGAG CCCAGGGGCT GCCCGTAACA GCGGTGTCCC AGGTCCCTGC CATCCNATTT 120
 TACCTGGAAT GTCTTCTCTG GAGTTTGAA TTGCTTGAGG AACCTGCGT GTGCTTGGAG 180
 AGGCCAGAGG GCTTGCTGAG AACCCCATGG ACAGTGAGAG GCGGGATTG AACCAAGGGC 240
 TGGACTCCCA CACCTNTGGC CTGCGTCGCC CAGTTCTTTG TGGCTCTGAA GAATTGGNCG 300
 10 CTGTGAAAA GTN 313

SEQ ID NO:4914

SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

15 TOPOLOGY:linear

CLONE:HUMGS05851

SEQUENCE DESCRIPTION:

20 GATCTTATGT GTTACAAAAT TGGAGAAAGT ATTTAATAAA ACCTGTTAAT TTTTATACTG 60
 ACAATAAAAA TGTTTCTACA GATATTAATG TTAACAAGAC AAAATAAATG TCACGCAACT 120
 TAAA 124

SEQ ID NO:4915

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

25 TOPOLOGY:linear

CLONE:HUMGS05852

SEQUENCE DESCRIPTION:

30 GATCCCCTGA ATGCCCTTGG AGGCCAGTAG AGCACACAGG GTATCCACAT GTTACCCTGC 60
 AGCTACATTG TTGAGTTAGT GATGATATTG TATATGCTCA TGGTCTNAAC TGGATTACAA 120
 AAAGCAAATA CTAGAACAGC TAGCTCATCT TTNACCCAAT GACTTAGTA TTTTCNTGCA 180
 CTGGTTTAAT CATGNTTAAT ACTACAAANC AAAANTAANT ATTTACAGT GGTGGGNTT 240
 35 TTTTGTGTTT AANCCACAGT TNGANTTAGT TAGCCTTGCT GGGGCCATAA TATGCTTCAG 300
 GGTGTGTAAN TGN 313

SEQ ID NO:4916

SEQUENCE LENGTH:312

SEQUENCE TYPE:nucleic acid

40 TOPOLOGY:linear

CLONE:HUMGS05854

SEQUENCE DESCRIPTION:

45 GATCTGGGGA CTACCAGAGA CTCTGGGAAA TGGACAAGGT GGGGGGCCCC ACTCTTTCTC 60
 TCCTGCAGTC CCGTAGCTGG GGCCTCCTTC CTTCTCAGG TCTCCCAGC CCAGTCCCCT 120
 TGCTCCCATC CCACTCGGTG CTGTTGGTA GGGGCCCTGC CAGGAACTGA CCAGCTNAGC 180
 GAGGAGCCAT AATGTGCATA TGTGCACAAG CAGGGTTTGG GGAGGGGGNT GTGAGGGGNT 240
 50 GTGCCCAGGT GTTGCCCCCT ATCTCCTGGG GAGGGTGAGG NAGGGCAGGG ACAGTNTCCA 300
 GGGGTNAATT TN 312

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SEQ ID NO:4917
SEQUENCE LENGTH:55
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05856
SEQUENCE DESCRIPTION:
GATCTAAATA TTCTGGTTTG GATTAGGCAA TTAATAATTT TTTGGCAACA GGAAA 55

SEQ ID NO:4918
SEQUENCE LENGTH:370
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05857
SEQUENCE DESCRIPTION:
GATCCAAGGA NCGTTTGGNT TTTCCTAGCT ACATCTGGTA CCTTGGCTGG CATTATGGGA 60
ATNAGGTTCT ACCACTCTGG AAAATTCATG CCTGCAGGTT TAATTGCAGG TGCCAGTTTG 120
CTGATGGTCG CCAAAGTTGG AGTTAGTATG TTCAACAGAC CCCATTAGCA GAAGTCATGT 180
TCCAGCTTAG ACTGATGAAG AATTAAAAAT CTGCATCTTC CACTATTTTC AATATATTAN 240
GAGAAATAAG TGCAGCATTT TTNCATCTGN CATTTTACCT AAAAAAAG ACACCAAANC 300
TTGGCAGAGA GGTGGGAAAA TCAGTCATGT TTTACCAANC CTANCNGAGG TTGGCGTGT 360
TTGTTACCTN 370

SEQ ID NO:4919
SEQUENCE LENGTH:168
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05858
SEQUENCE DESCRIPTION:
GATCTTGAAA GGAAGTATGC TGTTCCTAT CAGCCTCTAT TTGATAAGCG ATTTGAAATT 60
ATTAATGCAA TTTATGAACC TACGGAAGAA GAATGTGAAT GGAAACCAGA TGAAGAAGAT 120
GAGATTTCCG AGGAATTGAA AGAAAAGGCC AAGATTGAAG ATGAGAAA 168

SEQ ID NO:4920
SEQUENCE LENGTH:128
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05859
SEQUENCE DESCRIPTION:
GATCATGGGA GGGAGCTGAG GGGTTAATAT ATATACATAC ATACACATAT ATATATTTNN 60
GTAAATAAAC AGGAACTGAT TTNCTGCCTC CATCCCACCC ATGAGGGCTG CAGGNACTAC 120
AAGAGAAA 128

SEQ ID NO:4921
SEQUENCE LENGTH:166
SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05860

SEQUENCE DESCRIPTION:

5 GATCGGGTCC CCAGAGCCAC CATCTCCTGA GCCTCCCACC CCGCTGCCTG GGCCCTGTGG 60
 TTGCTGGGCC TCCCACCTCA AGGAGGGGAA GGTGTACAG CCCGAACCCG TGGAGCAATG 120
 CCCTGTNTGG NCTCCAAAAC CAAAATAAAA CTGGTGTAC TTAAA 166

10 SEQ ID NO:4922

SEQUENCE LENGTH:97

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05862

15 SEQUENCE DESCRIPTION:

GATCTTTAAA CTGCTTTATA CACTGTCAG TGGCTTCATC AGNTGTGTGC ATTCAGGAT 60
 GGTTTTTAAA GNAACCTCAG AAAGNTATTT CCTTAAA 97

20 SEQ ID NO:4923

SEQUENCE LENGTH:211

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05863

25 SEQUENCE DESCRIPTION:

GATCACAGAA AAATTAAGAA TCCAAGTGCT CTCTAGATTT GTTGATAAAC ATTTTATGCT 60
 TGCATTTAAA CTGAAATGT ATGAGCAGAA TGAGACAATC AGTTAAATCA GAAATGAGAA 120
 GTATTATAAT GTAAAGGCCT TGTGTTGCTG TAGCAATANN ATGACCAAGT GCAATGACTT 180
 30 GATTTAATAA AATCATATNT TAAAAGTTAA A 211

SEQ ID NO:4924

SEQUENCE LENGTH:338

SEQUENCE TYPE:nucleic acid

35 TOPOLOGY:linear

CLONE:HUMGS05864

SEQUENCE DESCRIPTION:

40 GATCAACGCC TCACTGAAAC ATGGCTGTGT TTGCAGCCTG CTCTAGTGGG ACAGCCCAGA 60
 GCCTGGCTGC CCATCATNTG GCCCCACCCA ATCAAGGGAA GAAGGAGGAA TGCTGGACTG 120
 GAGGCCCTG GAGCCAGATG GCAAGAGGCT GACAGCTTGC TTTCTGTGT GTACTCTGTC 180
 CAGTTCCCTT AGAAAAAATG GATGCCCAGA GGAATCCCAA CCCTTGGCTT GGGGTCAANG 240
 AAACAGCCAG CAAGGNGTTA GGGGNCCTAG GGCACCTGGG CTGTTTGTG CCCATTGAA 300
 45 NGGCGGNCTT NTGGGCCCTG GGCCCTTNAG GTTTGGTN 338

SEQ ID NO:4925

SEQUENCE LENGTH:259

SEQUENCE TYPE:nucleic acid

50 TOPOLOGY:linear

CLONE:HUMGS05865

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SEQUENCE DESCRIPTION:

GATCCTGTCT TCTTTCATGT TTACTACGAG GCATGACATT CATGGCAAAA CAGGGATGCC 60
 GTTTCOAAGA GCAGCTATAA AACAATCTGT TTCCTAAAG ACAGCCACTC TGAGAAGGNG 120
 ATGANGGAAC ACGGCAGGGT TCATCANTTC ATAGACTGTT TCCAAAAATA ATTTTAAAC 180
 TTTTCCACTA GGCATCTGTG TCTTTAACCA CTGCACANTG GCNTTGCCTG TTAAATANAA 240
 GGTNNTCANN ACGTGGAAA 259

SEQ ID NO:4926

SEQUENCE LENGTH:195

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05866

SEQUENCE DESCRIPTION:

GATCCACCCA CCTCGGCCTC CCAAAGTTTT GGGATTACAG GCACGAGCCA CAGTGCCAGC 60
 TGAACACGTT TCCTAACAG AAGTGCGCAG AGCATGATGG AGCCAGCCT GGGCTTGACA 120
 TTTGGAGAGA ACTACAGAGA AGTATCCAGA CTGTTGTAC TAATAAATA ATACATAAGC 180
 TCCGCTGNAC GGAAA 195

SEQ ID NO:4927

SEQUENCE LENGTH:56

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05867

SEQUENCE DESCRIPTION:

GATCCAACAA TAAATATTA ATTTATAAAA AAGAAATTT AAAAGTAAC AAGAAA 56

SEQ ID NO:4928

SEQUENCE LENGTH:82

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05868

SEQUENCE DESCRIPTION:

GATCATCCTC CAAGCAGTCC TGTTCAATCA TGTCTGCCTC AAATTGCTGG TGAATACATA 60
 AAATAGTTAC TTGCTAATCA AA 82

SEQ ID NO:4929

SEQUENCE LENGTH:286

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05869

SEQUENCE DESCRIPTION:

GATCCACCCG CCTCAGCCTC CCAAAGTGCT GGGATTACAG GCAAAAGCCA ACACACCCGG 60
 CCTGGATATG AATTATAAT ACCCTACAGT GCAGCACAAG AAGATGCACT CAAAGCACTG 120
 ATGTGAGGAA GTACTTGCCC CGTAGCAGCT ATTCCTCTA CCAGTGTAAC CAACTCTAA 180
 GGCTAGGGCG GGCAGCACA GGCACANGNN TATACTAGCC AGGGGTTTAA TATAANTACA 240

ACCAGCATAG NAAGNCCCAA ANCTNTACAG NNNCCAANAC CNGGNN

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SEQ ID NO:4930

SEQUENCE LENGTH:311

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05870

SEQUENCE DESCRIPTION:

GATCTGTGCC CCATGCCTGT CCAGCCTGGG CAGCCAGGCT GCCAAGGCCA GAGTGGCCTG 60
 GCCAGGGGCT CTTCAGGCCT CCCTCTCTCT TCTGCTCCAC CCTTGGCCTG TTTCATCCCC 120
 AGGGGTCCCA GCCACCCCGG GCTCTCTGCT GTACATATTT GAGACTAGTT TTTATTCCTT 180
 GTGAAGATGA TATACTATTN TGNTAAAGCG TGTCTGTANT TANTGTGTGA GGANCTGCTG 240
 GGNTTCANTT CGNGTGNACG GTGGGAGAGN TTGGGTGCCC GNGAGAATNG ACGGGCTNAT 300
 GGNTTCCTTT N 311

SEQ ID NO:4931

SEQUENCE LENGTH:305

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05871

SEQUENCE DESCRIPTION:

GATCAAAAAA CTACCTATCT GGTACTATGC TTTTATCTG GATGATGAAA TAATCTGTAC 60
 AACAAACCCT GGTGACATGC AATTACCTA TATAGCAAGC CTACACATGT GCCCCTGAAC 120
 CTAACAAAAA AGTTAAAGA AAAACGTTTG GNTTATTTT CCTCTTTNGA ACAANGNCAT 180
 TGGTTTGGCC AAGGNTACA AATAANCCAA CGGGAAAAAN GANAGGTTCC AGTTTTGTNT 240
 GANAATTCTG ATTAAGCCTC TGGGCCCTAC AGCCTGGGGA ACCTGGNGAN TCCTACACCC 300
 GGGAN 305

SEQ ID NO:4932

SEQUENCE LENGTH:233

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05872

SEQUENCE DESCRIPTION:

GATCCAGAGA CACACAAGAG CACCAAAGCA GTCATCCCA CTGATGACAC CACGACGCTC 60
 TCTGAGAGAC CATCCCAAG CACAGACGTC CAGACAGACC CCCAGACCCT CAAGCCATCT 120
 GGTTTTCATG AGGATGACCC CTCTTNTAT GATGANCACA CCCTNCGNAA ACGGGGTCTG 180
 TTGGTCGNAG NTGTGCTNTT CATCACAGGG ATNATNATTN CTNACCAGTT GGN 233

SEQ ID NO:4933

SEQUENCE LENGTH:276

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05874

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

GATCTACTAA AACACTAAGT TTCATACTAA ACCGTTTCAT GTATCTTTAT CATATTCTGT 60
 AAAGTTTACA CTTTGATGTA CCTGTATTTT ATTGAAATAC TGTCCAGCTT CAAATGGAAC 120
 AATATTGTAT GTAGAAATTC CAATTACTGG TTTGTCAGTN GGATTCTTAG CTCTGTAAAA 180
 CGCCAGTGCA GTCTCTCCTG GCACCACCTG TTTTAAAGAG TATATATATN ATCAGTNCTT 240
 TGNNTCTCAC AAAGNGCCTC NNTTCCCTG CTAAGN 276

SEQ ID NO:4934

SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05875

SEQUENCE DESCRIPTION:

GATCTGGTGG GCTGGGTCCC CCTCTCGACC NCAGACGCCC CTAAGTCGCC CCTTCTCATT 60
 TTATACAATA AACATTCTCC ACCTACAAA 89

SEQ ID NO:4935

SEQUENCE LENGTH:313

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05876

SEQUENCE DESCRIPTION:

GATCAGGAGT TCTAGGCTGT AGTGTGCTAT GAGCACATCT ATGAATAGGC ACTGCGTTCC 60
 AGCCTGGGCA ACATAGTGAG GCCCCATCTC TTTAAAGGGC ACACGTGTAT AGGACAGCTC 120
 CATTATAATC TTATGGGACC ACTGTAATAT GTGTAATCCA TTGTTGACTG GAACATCCTT 180
 ATGCAGCACA TGACTGTGTA CATAACTTAA AATTTATCAT TTAACCATT TTAAAGTGTA 240
 CAATTCCGTG GTATAAAGTA CATTTACATT ATTGTGTAAC TATCACCTCT ATCCATCTCC 300
 CTAACTTTTT CNN 313

SEQ ID NO:4936

SEQUENCE LENGTH:224

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05877

SEQUENCE DESCRIPTION:

GATCCGGGT CAGAGTGACG TTTTCTCTCA CAAGCAGAAG GTAACAAAT TCATGCTCTC 60
 CCTAAATTCT GTCTGATTTT GCCTNGTGGT GATAGATTGT CANGAACACA ATGTCCTCTG 120
 GAGAAATCTA TTGACAGAAA TTGGTGCAGT GTTANCAACG CTAATGTAAA ACACAGANTT 180
 TACAGAAAAAN TAGAGAAAAT AAACACATTT GTNNGCCTCA GAAA 224

SEQ ID NO:4937

SEQUENCE LENGTH:314

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05879

SEQUENCE DESCRIPTION:

5 GATCCTCTCT CCCAGGGAAT CCGACACAGG AGGAACCCCT TCTNTGGTTG ANCTGGGCCA 60
 GGCCTAAGAG TAGCAGGAAC TCTAAGACCA CAGAGTTTTT TATAAATGTA TAAATGTATC 120
 AAGCCAAATN TGCAGATGCT AACTGGACAT TCTGGGGAAC TGGGCACCAG GNGTGCCTTC 180
 ATACACTGTA CCCAGCTCT NTTCTAAAAG AGAAGTNGGT GGGCACACTT GAACTGTTTG 240
 GTGGNCCNAA CCACAGGANG CTGCAATTNT NTGGNTTAGG GTGATACTTT TGGCCCTNCN 300
 TGTGGCCCT NTTN 314

10 SEQ ID NO:4938
 SEQUENCE LENGTH:143
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05880
 15 SEQUENCE DESCRIPTION:
 GATCTGAAAG TATAAACTG CTAGAAGAAA ACATGGATAT TTGATTGGAC AATGATATTT 60
 GGATATGACA CCAAAGCCT AGGCAACTAA TGCAAAAATA GACAGGGAGA GTACATCAAT 120
 CTTAAAAACC TTATGATGGC AAA 143

20 SEQ ID NO:4939
 SEQUENCE LENGTH:389
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS05882
 SEQUENCE DESCRIPTION:
 GATCTGAAAT ACCATCTCTA CCAGAGACTC TGGGAAAAAT AATGGATTCC AAGTGTTAAA 60
 CGGAATTAAG TTTGGCCTAA AACTGCCTCT GTACATAGTG ACTTATAACC TCACTTAATG 120
 30 TATAAGCAA CTGGGACCTG ACTTGAGAGT ACACTTCTGT AACAAGCAGC AGAGTCTCAC 180
 CAATCACATG CTGAAGGCTC CAAAACATG NCTATGTGAG GTGGAGGCTG ACCTGCAGTC 240
 AGTCTGGCCA TGTACATGNG TCTTCCCTT NCTGTGGCTA TAAATAAATA CAGCCTGNAC 300
 ACANCGGACA GGNGGACCGT TCTGNACCAN GNTTGGGTCC TGNNGNTAC CNAGGTNGAN 360
 35 GNAACTTTTT TTNNGCTCAN TAAACTGN 389

40 SEQ ID NO:4940
 SEQUENCE LENGTH:131
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05885
 SEQUENCE DESCRIPTION:
 GATCTCTCCG CCTTAGTTAA GAGCATGTGT CGGGAAATTC CTCAGAGTGC TCAGAGTCCC 60
 45 TGTATNTTTA TACCTTTTAA CAATGTTAAC TGTTCAGAAC TGNTTTTGT AACAAAACCT 120
 NNTGTTTAA A 131

50 SEQ ID NO:4941
 SEQUENCE LENGTH:115
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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EP 0 679 716 A1

CLONE:HUMGS05886

SEQUENCE DESCRIPTION:

GATCATGGCG CAGTTGGNCA GGAGATGTTT TGCCCCATCT GCTGTAGCGA ATATGTGAAG 60
TGGGAGGTGG CAACNGAGCT GCCNTTCCAC CACTATTNCC ACAAGCCGTG TGTNN 115

SEQ ID NO:4942

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05887

SEQUENCE DESCRIPTION:

GATCCTCCCG CCTNGTCTG CCAAAGCACT NGGGTTACAG ATGTGAGCCA CTNACCCAG 60
CCTAATCTTN ATAAATCTCC ATCCCCATTA CTCTGGTTCA CCCNN 105

SEQ ID NO:4943

SEQUENCE LENGTH:350

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05888

SEQUENCE DESCRIPTION:

GATCACGGAC GTGCAGCTCG CCATCTNCGN CAACATGCTG GGCCTGTCGC TCTTCTNGCT 60
TGTTGTTCTC TATCACTACG TGGCCGTCAA CAATCCCAAG AAGCAGGANT GAAAGTGGCG 120
CTTTCTCCGC CCCAGGGTTC CAGGACATAG TCTGAGGCAA GATGGAGGGT ATGAGGGGCC 180
TTCACACTNC ACTTCATCCC TTCTACCCAT CACAACATAC AAAGCAACTA CACCTGGGAT 240
TTTNCCAAAG AGCTTTNATT TCCTCAGNGT CTTCCTTAAT CCTATGGGNA CANGGAAGCT 300
GCCACTNGNN TAGGGNCCAG TATAGGGGGC TTNGCTTTTT TAACTGCNTN 350

SEQ ID NO:4944

SEQUENCE LENGTH:304

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05889

SEQUENCE DESCRIPTION:

GATCCAGCGG CAGTGACAGA ATCCAAAGAG GGAACAGAGG CATCAGCATC GAAGGGGCTG 60
GAGAAGAAAG AGAAATGATG CAGCTGGTGC CCGAGCCTCT CAGGGCCAGA CCAGACAGAT 120
GGGGGCTGGG CCCACACAGG CGTGCACCGG GTAGAGNGCA CAGGTAGGCC AAGGGGNAGC 180
TCCCAGGACA GGGCAAGGGG GCAGCANGGA TACCTGCNAG CCAGGGNCTC TNTGGCCTNT 240
NTTTTCCTAN TCCNTTTTTT TGGCCCTTCT TTTTNTNTG CCGTACANCN TGCAGGCAAA 300
AGNN 304

SEQ ID NO:4945

SEQUENCE LENGTH:64

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05890

SEQUENCE DESCRIPTION:

GATCAAAACA AAACAAAAA GTTGTCTCTG AAAAAAAAC AAAACAAAA AGTTGTCTCT 60
GAAA 64

SEQ ID NO:4946

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05892

SEQUENCE DESCRIPTION:

GATCAACCTT TGINTGCGAG GGTCTAAGTA GGGTCGAACA CAGAAGTGGG AAGNAGAGGG 60
GTGGGCCAGG GGCTAATGGT GTCACGTGTG AAAGTTTTTG ACATACTAGC TCTATAAATA 120
TATGAATATG GACAAA 136

SEQ ID NO:4947

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05893

SEQUENCE DESCRIPTION:

GATCCTCTGC TACCAAACAA TGATGTGGAT TCTTTGCAC AGAAATATTT AAGGTGGGAT 60
GGTAAAAAAT GTCACAAAAG ACTCCTCACC AATACTTNAT GTTGATATCA CTTAATATTA 120
ACCAGACTTT GCTGTATTGC AATAAACAG AGAACTGTTA AA 162

SEQ ID NO:4948

SEQUENCE LENGTH:405

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05894

SEQUENCE DESCRIPTION:

GATCATCGCC TCCCTGGTTT ATAGTAGACA GACCTTTTCT GTTTTTCATC CGACATAATC 60
CTACAGGTGC TGTGTTATTC ATGGGGCAGA TAAACAAACC CTGAAGAGTA TACAAAAGAA 120
ACCATGCAAA GCAACGACTA CTTTGCTACG AAGAAAGACT CCTTTCCTGC ATCTTTCATA 180
GTTCTGTAA ATATTTTGT ACATCGCTTC TTTTCAAAA CTAGTTCTTA GGAACAGACT 240
CGATGCAAGT GTTCTGTTC TGGGAGGTAT TNGAGGAAA AANCAAGCAG GATGGCTGGA 300
ACACTGTACT GAGGAATGAA TAGAAAGGCT TCCAGATGTC TAAAAAGATT CTTTAAACT 360
ACTGNAACTG TTACCTAGGT TAACCANCCC TGTTTGAGGT ATTTN 405

SEQ ID NO:4949

SEQUENCE LENGTH:330

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05895

SEQUENCE DESCRIPTION:

GATCTGCTCG GAATCCTCCT GCTAAAGAAG GNTCTGGGCG TGAGCTCAGC CGCCCCGCAC 60

EP 0 679 716 A1

CCCAAATCCA GTACAGGAGG CTGCTGGTAC AAATACTGCA GTAATGACAC CAATAATGGG 120
GCAGACACAA CAGCGTGGCT TAGATTGTGC CCACCNAGGG AAGGTGCTGA ATGGGACCCT 180
GTTGATGGCC CCATCTGGAT GTAAATCCTG AGCTCAAATC TCTGTTACTC CATTACTGTG 240
5 ATTTCTGGCT GGGTCACCAG AAATATCGNT GATNCAGACA CAGATTATTG TTCCTGCTGT 300
ATTTGCTGGT TTNCTGGTT GAATTGGTTN 330

SEQ ID NO:4950

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05896

SEQUENCE DESCRIPTION:

15 GATCCAGAAT TTATTAGTTT AAAATGCAGG TGAACTTTTT TTGCGTTTG GTTACTTGT 60
CTGTCAAATG TTTCCTTAAA CATGAACTG AATAAGGAGA AGAGTATTTT TAACACTTAA 120
ATTTCTTGGC AAATTTTAAA ACATTTTNA GTCTGTAATA CACTCCACTT GANGCACTTA 180
AGTNTTCCTT AAATGACTTT CCTTAGGTAA TGATACTGGT GTGTTTCCN AAGGCCCTTT 240
20 TAAAAAAGTN TNNNTAANTG ACTATCTGTT GAAANGGTGT CCTGTNCCTT NCTNCTAGNA 300
ATNTGGGN 308

SEQ ID NO:4951

SEQUENCE LENGTH:97

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05897

SEQUENCE DESCRIPTION:

30 GATCGGAAGC AGAAGATGGC CTCTTAAAG AGTTTAGAAG AATTTATGGC AAATGTTGGT 60
GGTCTCCTTT GTGTAAAATA AACAACAGAA CTTTAAA 97

SEQ ID NO:4952

SEQUENCE LENGTH:229

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05898

SEQUENCE DESCRIPTION:

40 GATCTGATAT TAAACATCC AGTAGTACGA GTCTGTTTAT TGAATTTTAT GGTCCCTTTC 60
TTTGATGGTG CTGTCAGGTT TTCTAGGTAG AAATTATTTC ATTATTATAA TAAACAATG 120
TTTGATTCAA AATTTGAACA AAATTGTTTT AAATAAATG TCTGTATACC AGTACAAGTT 180
TATTGTTTCA GTATACTCGT ACTAATAAAA TAACAGTGCC AATTGCAAA 229

SEQ ID NO:4953

SEQUENCE LENGTH:144

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05899

SEQUENCE DESCRIPTION:

EP 0 679 716 A1

GATCCAGAGC CCCTCCCAT CTCCTCTCT CTAAAAACAA CCCTACCCCC CATTGCCACC 60
TTCACCTCTG TGTCTCCAGC TGATTAGCCT CAGACTCTTC TTNTATTGTT TTTCTTTTGT 120
AAATAAAAAG CACCAGGTTC CAAA 144

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SEQ ID NO:4954
SEQUENCE LENGTH:105
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05900
SEQUENCE DESCRIPTION:
GATCCGTGCC CTGTAAATG GATATNATGT TTIAGTGATG TCTNTAATAC ATTTGTAAAC 60
TTCCAATAAA ATTTGAATAA AAGAAATNTT GCCATTCTTC TCAAA 105

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SEQ ID NO:4955
SEQUENCE LENGTH:325
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05902
SEQUENCE DESCRIPTION:
GATCTGGCAG CCCTGGAGAG GGACTATGAG GAAGTGGCGC AAAGTTTCTG AGGCATGTAT 60
GATGGGTGCA AATGAATGTC AAGTTAAAT GGCATGTTT CTTTCAAGC CGNTATATGC 120
CTAGTGGGTA GTTCCCCTGA TGAGCAGAAA AATTGAATC AAATCAGGCA AGACTCTAGG 180
NTCCACACTA AATTAAGTGG GTCAGTANCG NCANTGANCA CATTATTCC TGGTCTACTG 240
GGTACANGTC AGCTCTGCTT ACCTGNGGAG CNTTTGGAA GCTTAAGAGT NCTTTTGAAC 300
CTGGCTTGAG GTCAACTTGT TAGGN 325

30

SEQ ID NO:4956
SEQUENCE LENGTH:321
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05903
SEQUENCE DESCRIPTION:
GATCTGTACA GACAGGACAG AATGAACTC CTGCGGCTCT TTGGCCTGAA AGTTGGGAAT 60
GGTTGGGGGA GAGAAGGGCA GCAGCTTATT GGTGGTCTTT TCACCATTGG CAGAAACAGT 120
GAGAGCTGTG TGGTGCAGAA ATCCAGAAAT GAGGTGTAGG GAATTTGCC TNCCTTCCTG 180
CAGACCTGAG CTGGCTTTGG AATGAGGTTA AAGTGTGAGG GACGTTGCCT GAGCCCAAAT 240
GTTGTAGTGT GGTCTGGGCA GGCAGACCTT TTAGGNTTTT NCTGCTTTAG TTCCTGAGGN 300
ANNTNGNCA CTCITTNTNT N 321

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SEQ ID NO:4957
SEQUENCE LENGTH:313
SEQUENCE TYPE:nucleic acid
TOPOLOGY:linear
CLONE:HUMGS05907
SEQUENCE DESCRIPTION:

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EP 0 679 716 A1

5 GATCCAGGGG CTGATTGGCA GCGTGGAGGA GCAGCTGGCC CAGCTTCGCT GCTGAGATGG 60
 AGCAGCAGAA CCAGGAATAC AAAATCCTNC TGGATGTGAA GACGCGGCTG GAGCAGGAGA 120
 TTGCCACCTA CCGCCGCCTN CTGGAGGGAG AGGATNCCCA CCTGACTCAG TACAAGAAAG 180
 AACC GGTCAC CACCCGTCAG GTGCGTACCA TTGTGGAAGA GGTCCAGGAT GGNAAGGTCA 240
 TCTNCTNCCG NGNGCAGGTT CACCAGACCA CCNGTTTGAG GNCTCANCTA CCCC GGNTCG 300
 GNCANCCATN TNN 313

10 SEQ ID NO:4958
 SEQUENCE LENGTH:54
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05908
 15 SEQUENCE DESCRIPTION:
 GATCATTAAAT GTCATTGCAA TNGTTATTTT TTAAAATAAA TTTATAAAAA TAAA 54

20 SEQ ID NO:4959
 SEQUENCE LENGTH:208
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05912
 SEQUENCE DESCRIPTION:
 25 GATCTACAAG AGCAAGCCAA CAGAGTAAAG TGGAAGGAAG TTTATTCAGA AAATAAAGGA 60
 GTATCACAGC TCTTTTAGAA TTTGTCTAGC AGGCTTTCCA GTTTTACCA GAAAACCCCT 120
 ATAAATTAAA AATTTTAC TTAATTTAA GAATTAAAAA AATACAAAAA AGAAAAAATG 180
 AAAATAAAGG AATAAGAAAGT TACCTAAA 208

30 SEQ ID NO:4960
 SEQUENCE LENGTH:92
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 35 CLONE:HUMGS05913
 SEQUENCE DESCRIPTION:
 GATCCAAGTT ATAGATGGAA TTGAAGCCCT TGTNGCTGTA GATGTGCGTG CAGTCTGNCA 60
 GCCTTAAGCC CACCTNNGCA CTTTATGATA AA 92

40 SEQ ID NO:4961
 SEQUENCE LENGTH:270
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 45 CLONE:HUMGS05914
 SEQUENCE DESCRIPTION:
 GATCAACAGT AACTGGATGT TTTNAGGNG CTCAATTGGA ATAAAAATAT TNNAATCTAT 60
 TTGGAGACCA AAGGCAAAAT CGGTTTCTT ACCTTTGGAA TTATTCGTAC CTTTATGGT 120
 50 AAATTCAGC TTTGACANGT ATTATGAGGA ACGTACCAAA AACC GGTTTG TAACAAATCT 180
 NTAGAGNAGG TCTGAATCTN TCGNNCTTGC CTTTTCAGGT GCCATTCTA CTGGCCTAAT 240

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ACAGNGCCAT TTGGCTTGTG AAGNNCCATN

270

SEQ ID NO:4962

SEQUENCE LENGTH:236

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05916

SEQUENCE DESCRIPTION:

GATCTATGCC CNTNTTAATC TCCATCCATA TAGGAGTCAC GTTCTTTAAG ACAGATGGTG 60
GTAGTTATTT TTGTGGCATG GTTAGATTG ACTGGTTTGG CAGAAGATTA CAGTTATGTA 120
CTGCATAATG NCATATACAA TAGTGGTCCC ATAAANNNNN TAATGGAGCA GAAAATCTAT 180
TGCCTCATGA TGTTTATGCC GGTTTANTGT CATAGNCTAG TGCATNACTC ACGTGN 236

SEQ ID NO:4963

SEQUENCE LENGTH:265

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05917

SEQUENCE DESCRIPTION:

GATCGAGTAA GGAATGACCT NTAGATTGTG CGACTTTTGT TTTTGTITTN TTAAATTTT 60
ATAAACCAAG AATGATTCT CCGCTTCCN TCTCCTCACC ATCTTCCCAG ACGGAGTTCA 120
AAGGCCACTT CTCAAGCAGC TTTTGGCACC TTCAGCCTCA GAGTGGAATC TTTTAAAGAC 180
AGGACCCCTA TGTCCAGGNA AGGGGAAAAG GAACNTTGCC ANTGATAGTG ACCACAGCAN 240
NNGCAANTAA TAGTAATNTT NATAN 265

SEQ ID NO:4964

SEQUENCE LENGTH:54

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05918

SEQUENCE DESCRIPTION:

GATCACATTT ATACAGTTAT AAAAATAAAG GTTTGATTTT GGTGTTCTT CAAA 54

SEQ ID NO:4965

SEQUENCE LENGTH:63

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05919

SEQUENCE DESCRIPTION:

GATCTCTATG GCTGTAAAAT ATTTCTTTAT AGCGTTATTA AAGTGTGTCT TAATAAAATT 60
AAA 63

SEQ ID NO:4966

SEQUENCE LENGTH:233

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05920

SEQUENCE DESCRIPTION:

GATCCACAAA AGAAGTGAAA GTAGCCTTAA CTGATGACAT TCCACCATTG TNATTTGTTT 60
CTGCCCCACG CTAAC TGATA CCATATATTC TTCCCCCGCC CTTGAGAATG TACTTTGTAC 120
ACCTATCCCA AACCTATAAG AACTAATGAT AATCCNACCA CCCTTTGCTG ACTCTCTTTT 180
TGGACTCAGC CCGNCTGCAC CCAGGTGAAA TAAACAGCCC TGTGCTCAC AAA 233

SEQ ID NO:4967

SEQUENCE LENGTH:137

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05921

SEQUENCE DESCRIPTION:

GATCTCTGCG TTTTATACT GAGTGTGCCT AGGTTGCCCC TTATTTTNA TTTCCCTGT 60
TGCGTTGCTA TAGATGAAGG GTGAGGACAA TCGTGTATAT GTACTAGAAC TTTTATTATA 120
AAGAACTTT TCCAAA 137

SEQ ID NO:4968

SEQUENCE LENGTH:90

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05923

SEQUENCE DESCRIPTION:

GATCTGTAAA CCCTTACCCC TTGCTGTTCA GAGAGCTACT CTTTGTAGTG TTCTTGCATG 60
CATATATAAT AAATATTTT TCTATTGAAA 90

SEQ ID NO:4969

SEQUENCE LENGTH:259

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05925

SEQUENCE DESCRIPTION:

GATCTAAATC AATGCAATAA AGTAAGAAAA ATAAATAAAA GTATTGAAAA GATTGAAAAG 60
AAAGAATTGA AGCTGTCTTT ATTCACAGAT AATGACTGTG TATGTTAATA ATCCTAGANA 120
TCTACAAAAN TCTGCCAAAN CTAATTAGTG AGTTTGGTAA TGTTCAGGA TATAAGCTCA 180
ATAGAAGTAG TCTTTNGTAT TTCTGTGTAT TAGCAGTGAG CATTGGGAAA ATGANATAAN 240
ANTACAGTTT CATTCAAA 259

SEQ ID NO:4970

SEQUENCE LENGTH:350

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05926

SEQUENCE DESCRIPTION:

GATCTGTGCC CTTGGTCCCA GGTGAGGCC ACCCCCTGCA CCTCCACCTG CCCCAGCCCC 60
TGCCTCTNCC CCAAGTGGGG CCAGCTGCCC TCACTTCTGG GGTGGATGAT GTGACCTTCC 120
TTGGGGGACT GCGGAAGGGA CGAGGGTTCC CTGGAGTCTT ACGGTCCAAC ATCAGGACCA 180
AGTCCCATGG ACATGCTGAC AGGGTCCCCA NGGAGNCCCC GTCAGTAGGG ATGTTTGCCT 240
GGNTGTTTAC GTNGGGGTGT NCAGTGNACG TGNAGGAGCA CGTGGGCGGC TTCTGNNGGG 300
GNCAATGGTT TGGGNGANGG GAAGGTGTGC CAGCAAACCT NGGNNGGATN 350

SEQ ID NO:4971

SEQUENCE LENGTH:202

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05927

SEQUENCE DESCRIPTION:

GATCCACGGG CTGCAGAATG GATATTGTAT TAGCAGGCAT GAAAACAACA TTCATCTCCT 60
TGTGCATCTC TGTCTGAGTT CTTGGGTGAC CAAATGCCTT GTCAATGAGT GTAGTATTTT 120
GAAAGGAATC TTTTTTTTTT TTTTCNAGC AGTAGGNCNC AANGGTGGGC TTCAATTATT 180
CAGTAAACTA TGTAANCAGA AA 202

SEQ ID NO:4972

SEQUENCE LENGTH:127

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05928

SEQUENCE DESCRIPTION:

GATCCAGCT ACTCAGGAGG CTGAGGCAGA AAAATCACTT GAACCCAGGA GGTGGAGGTT 60
GCAGTGAGCA GAGACCACAC AACTGCACTC CAGTCTGGGC AACAAAGTGA GACTCTGTNT 120
TACTAAA 127

SEQ ID NO:4973

SEQUENCE LENGTH:249

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05932

SEQUENCE DESCRIPTION:

GATCCTATCA ATTAGACAGT AAATAAGTGC ATCTTTTTTG AGACAAATGC AGTAGGCAAA 60
TGTTGACATT CACCAGGGCA CAGTCAATCC CTGACAATTT CAGAAGTTTT GTTGCCAATA 120
CTGATTTATG TGGGCAGATT CTGGNAGTCT GCTGCTCCTT CNCTCATGGA TNACCTNCNN 180
NNNCCTACAG TTGCACCTAT TCTACACAAG AGTGGCATTG ANTNGTATCC AGGAAAGCTA 240
GANCAGGTN 249

SEQ ID NO:4974

SEQUENCE LENGTH:189

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05933

SEQUENCE DESCRIPTION:

5 GATCCGAGTC GTCCGGAAT CCATTGCCCC TNTTCTCACA GTTATTAACC AGACTCAGAA 60
 AGAAAACCTC AGGAAATTCT ACAAGGGCAA GAAGTACAAG CCCCTNGACC TCGGCCTAA 120
 GAGACACGTG CCATGCGGCN NCGCTNAACA AAGACGGGNG AACTTAAGGC CAGGAGAGCA 180
 NNGNAGGAN 189

SEQ ID NO:4975

10 SEQUENCE LENGTH:230

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05934

SEQUENCE DESCRIPTION:

15 GATCATCATC TTTCAGGTGG TCTCCTGGG CCTCCTGGCT GGCCTGGTGG TCCTATTCTA 60
 CGNATATCCT GTCCNCTGTG AGTGGTATGA GTTCCTCACC TGCATCCCCT TCACTGACAA 120
 GTTCTGTGAG AAGTACGAAC TAGATGCTCA GCTCCACTGA GCTNGCTGCG GGGTTNCAGC 180
 GNNGGGTGTG CTCCAGCAGG GCCAGAGNCA GNCAAGANCT ACNCTGNGGN 230

20 SEQ ID NO:4976

SEQUENCE LENGTH:66

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05937

SEQUENCE DESCRIPTION:

25 GATCATTAAAT TATATGTAAA ATAATATACA TTCAGTTATT AAGAAATAAA CTGCTTTTCTT 60
 AATAAA 66

30 SEQ ID NO:4977

SEQUENCE LENGTH:105

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05938

SEQUENCE DESCRIPTION:

35 GATCTATGTC TTTCAGCTAT GTGCTTTTAA AACTTTGTAA TTTAGACATT GATATTGTCA 60
 TCAGATTGCT TATCAGCATT GCCATAAATA TAATTATTAA TGAAA 105

40 SEQ ID NO:4978

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05939

SEQUENCE DESCRIPTION:

45 GATCTGCCCC CCTCGGCCAC CCAGAGTGCT GGGATTACAG NCGTGAGCAC CGTGCCTGAC 60
 CAAAATAAAT AAATTTTAAA ATAGAAGTAA CTCAACTTCT GAGCTATGGA ATAGTTCTCT 120
 GTACCTCCAG TACCTAATAA AGAACCCAAA TACTGCAATA AA 162

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5 SEQ ID NO:4979
 SEQUENCE LENGTH:189
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05940
 SEQUENCE DESCRIPTION:
 10 GATCGAGGAC TGGTACAGGA ACCACCAGGA GGAAGACCTG ACTGAATTCC TCTGCGCCAA 60
 CCACGTGCTG AAGNGAAAAAN ACACCAGTTN CCTGGCAGAG CAGTGGTCCG GCAAGAAGGG 120
 AGACACAGNT GCCCTGGGNG GGANGAAGTC CAAGAAGAAG AGCATCANNG CCAAGGCAGC 180
 AGGNGTCAN 189

15 SEQ ID NO:4980
 SEQUENCE LENGTH:66
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05941
 20 SEQUENCE DESCRIPTION:
 GATCTNTTTT AAAAATGTAT AAATTNCTTG AGTAATTCCT GGATTAAAGA ATATGCACTT 60
 TTTAAA 66

25 SEQ ID NO:4981
 SEQUENCE LENGTH:113
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05942
 30 SEQUENCE DESCRIPTION:
 GATCGCTGGC ATCAAGAGTG GAGAGGACCG NACAGCCGNG AAGGCAGCCT TTCANGAAC 60
 TATGCTGGTG AGTGTAGGAG ATNGCTTANG AAGAGCTCAG ACCCTCTATC AAN 113

35 SEQ ID NO:4982
 SEQUENCE LENGTH:316
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05943
 40 SEQUENCE DESCRIPTION:
 GATCATAGTT ATTATACAAT GTAGTGAGTC CTGCATGGGT NCTCGATGTG TAATGAAACC 60
 TGAAATAATA AGATAATAAG AAAAGCAATA ATTTTCTAAA GCTGTGCTGT CGGTGATACA 120
 GAGATGATAC TCAAATTATA ATAAACTCT TCATTTTGTG AATTATAGAA GCTACTNNNN 180
 45 NTAAAGCCAT ATTTTTTTAG GGAAACTAAG GAGTGACATA GAACTGATGA ATGAGCAAAA 240
 GTAAGTTTGT CTGGATTTT GTAGAACTCT GGACGTTGAG GATTATTAT GCTGTGGTTA 300
 ACTTTAAATA TTTTNN 316

50 SEQ ID NO:4983
 SEQUENCE LENGTH:338
 SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS05946

SEQUENCE DESCRIPTION:

5 GATCAGCCCA CTTCACTCTC CCAAAGTGCT NGGATTACAG ACATGAGCCA CCTACCTGNC 60
 CGGAGTTATT TCTAAACACA ACTAATATCA GAATCGCCTA TTTCATAAAA ATTGGATTCA 120
 TCAAATNAAT CTTTGGCCAA CAACCATTTG AGAATGATNN NNANCATCAT ACATAGGAAT 180
 GCTACGTTTT CTAGGATTTG ACATTIACAG CANTCGAGAN TTACCCTATT TTGTAAATNG 240
 10 AAATAACCAT TACTAAAAATC ATGCAAGCTT CAGCTNCTCG GGTTCCCTATA GNGTCACCTA 300
 AATCGTATGT GNATGGATAC ATAAGGNTTA TGNATCAN 338

SEQ ID NO:4984

SEQUENCE LENGTH:154

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05947

SEQUENCE DESCRIPTION:

20 GATCCGCCCG CTTTGGCCTC CCAAGGTGCT GGGATTGTAG GCGTGAGCAC CCCTGGCCTC 60
 NAATNTTCAC ATTTATATAC TGAATTATAC ATTACATTAT GTACATATGA TAACTAGTTG 120
 CTTAAATATT TTAATAAATT ATATCTAATG TAAA 154

SEQ ID NO:4985

25 SEQUENCE LENGTH:122

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05948

SEQUENCE DESCRIPTION:

30 GATCATGCAG AGAATATATA TTGTACTGTA GTAATTTTNT ATTTACATTT GTATGATGTG 60
 ACATAATAGA TGTGAATGTT AATCACTGNT TGAATATGTT AATAAAGTTG TTAACTATA 120
 AA 122

35 SEQ ID NO:4986

SEQUENCE LENGTH:133

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS05949

SEQUENCE DESCRIPTION:

GATCTCTATT TTAATNNTAA TTCTAGTTAG TTGTGCCTNA ACTCCAAAGA AATGNGAGTA 60
 TAGTGAGGTA TGTCTGACTC CCACTTCTTA TCATGCTCTG AACTAGTTNT TTATGTTTCT 120
 45 TTGTGTTNCC TTN 133

SEQ ID NO:4987

SEQUENCE LENGTH:351

SEQUENCE TYPE:nucleic acid

50 TOPOLOGY:linear

CLONE:HUMGS05951

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SEQUENCE DESCRIPTION:

GATCGCACAC ATGCTTTNTT NNNATATGGA GTGAACACAA TTATGTACCA AATTAACTT 60
 GGCAAATTT CTATTGCCGTG TCCCATGTGC ATCTTATTTA AAATTTCCCC CATGGAAATC 120
 ACTCTCCTGT TGA CTATTTC CAGAGCTCTA GGTGTTTAGG CAGCGTGTGG TGTCTGAGAG 180
 GCCATAGCGC CATCATGGGC TGATTTTNA TTACCAGGTC CCCCAGAAGC AGGTGGGGAG 240
 GCTCTGCTTN CTGCTGCCGG TCTNCAAGNC TTGGACCTNT GGACCCTGNT TTGTAAAGNG 300
 TAAATTNGTA TCCTTNAGGG AAACCCAAGT GTCAACCTTG TTTNTTCAAT N 351

SEQ ID NO:4988

SEQUENCE LENGTH:310

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05952

SEQUENCE DESCRIPTION:

GATCGACACA TTCGNATCTN NAATNGTGC TCTGGGGCCT GTCTGAGTGC CGTGGATGCC 60
 CATTCCCAGG TGTGCTCCAT CCTCTGGTCT CCCCATTACA AGGAGCTCAT CTCAGGCCAT 120
 GGCTTTGCAC AGAACCAGCT AGTTATTTGG AAGTACCCAA CCATGGCCAA GGTGGCTGAA 180
 CTCAAAGTGC ACACATCCCG GGTCTGAGT CTGACCATNA GCCCAGATNG GGCACAGTG 240
 GCATCCCGNA GCANCAGATT GNGACCNTGA GGCTATGGNC GCTGTTTTGA NGTTGGTACC 300
 NTGCGNNGGN 310

SEQ ID NO:4989

SEQUENCE LENGTH:150

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05953

SEQUENCE DESCRIPTION:

GATCTGAAAC AAAATCTTTC TAAACATTG TTTTAGTTGT CAAAGCACCA ACAGGACATT 60
 TTGGGATGTG AAATGTAATT TCTTGGAATC TGTAATTTGT ACTTAATATT TNAGGCTTGT 120
 ATTTAATATA ATAAATAGGT GTTTGTAAA 150

SEQ ID NO:4990

SEQUENCE LENGTH:240

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05954

SEQUENCE DESCRIPTION:

GATCATCCCT TCACAATCCC AGAGTGGCAG GCGGGACCAG CCCCATGGTC TGGCTCCTGT 60
 CACCTGGGTC CGTGCCAGCA CAATCTGCCA AAGTTCTAGA GACCCTGTTC CCTTCCCCAT 120
 NAGGTACAT GCTTCTTCTG TGTGTATTTT TTTTGTTTT TATGGTTTTT GGAGCAATTT 180
 AAACCTCCAG TTGNNTATTT TCACAAAAGA AANTAAAATT GCAGTTGCAA GCCCTTTAAA 240

SEQ ID NO:4991

SEQUENCE LENGTH:323

SEQUENCE TYPE:nucleic acid

EP 0 679 716 A1

TOPOLOGY:linear

CLONE:HUMGS05955

SEQUENCE DESCRIPTION:

5 GATCCTTTTT TGTACATTTA AGAATATTTT GATTATATTA AACAAAGACTG CTGATTTTGC 60
TACTTTTTTT AAGGGGTCTT CANGTANGTA AAACATACAT CGTAGCTAGA AGAAAAATGT 120
ACCTTAAATT TGCATCTTCC CTCTCATACC CAAGCTGTAA ACAATTGAAA TATTTTGTCT 180
TAAATCACTT GGTCAATAC ATGCTTATTT GTTTTAAAC CTGTATCATC ANACTCTCTC 240
10 TCNAAATTTA AAATGCTGTT GAATATGATA CTTTGGAGGA GAGAGTGTGC TCAGAACTTA 300
GACGGGGTTT GGTAGGCCAA NGN 323

SEQ ID NO:4992

SEQUENCE LENGTH:110

15 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05956

SEQUENCE DESCRIPTION:

20 GATCTTAACC ATCACAAGTT TTTACCCTCT TCCTTCATGC CTGACCTCAA CCCCCTCTC 60
CTCATCTAT TCCTAAATTA GGCTAATAAA GTGAAATTGG TATACTTAAA 110

SEQ ID NO:4993

SEQUENCE LENGTH:228

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05957

SEQUENCE DESCRIPTION:

30 GATCGCTTGA GCCCAAGAGT TTGGGACCAA TCTGAGCAAT ATAGCAAGAC CCCATCTCTA 60
CAAAGAATAA AGAAAAATTA GACTAGCTTG GTGGCATGTG CCTGTGGTCC CAGCTACTCA 120
AGAGGCTGAG GTAGGAGGAT TGCTTGAGCC TGGGAGGTGG AGGCATCAGT GAGCCATGAC 180
CGTACCACTT CATTCCAGCC TAGGTAACAG AATAAGACCC TGTCTAAA 228

35 SEQ ID NO:4994

SEQUENCE LENGTH:182

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

40 CLONE:HUMGS05959

SEQUENCE DESCRIPTION:

GATCAAGCTA CACATCAGTT TTACAATATA AATACTTGTA CTACCTTAAT GATAAGNACT 60
CCTTAAAGTT CCATTTGCTA ATNATTAATA CACTGTTTGG GCTGGCCAGT TTTTCATGCA 120
45 TGCAGCTTGA CGATTGAGCA CAGTCAGGCC TTTGTATTAA AAATGAAANA TGAAANAACA 180
AA 182

SEQ ID NO:4995

SEQUENCE LENGTH:300

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

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CLONE:HUMGS05960

SEQUENCE DESCRIPTION:

GATCAACTGG TTTGTGTTTT GCTGCTGCAT TTATCCCAAG TNAACAGGT TTAATCTCCA 60
 5 GANGAAAACC AAAATACCAT GGGATTTATG CTGNATTGAC ATCTTGCCCT AAACGNACAA 120
 CATCATAGTA ATTTGTCATG GGCAACATGA CCAGNGAGAA GATTTTGTG ATGATTTTAA 180
 ATACACTGNC ACGCTACTGT TGGTTAAATT TAAACANGTT TTACCTGCAG NAATTCTCTC 240
 ACAAATAACC NGCAATAACT TGAATGCAT NCCCTTTTGA ACACTTCCTT TNCTCATGGN 300

SEQ ID NO:4996

SEQUENCE LENGTH:162

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05961

SEQUENCE DESCRIPTION:

GATCCTGCTC CCTTCTGGGC TCTGACTCTC CTGGAAATCT CTCCAAGGCC AGAGCTATGC 60
 15 TTTAGGTCTC AATTTTGAA TTTCAAACAC CAGCAAAAAA TTGGAAATCG AGATAGGTTG 120
 20 CTGACTTTNA TTTGTCAAA TAAAGATATT AAAAAAGGCA AA 162

SEQ ID NO:4997

SEQUENCE LENGTH:136

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05962

SEQUENCE DESCRIPTION:

GATCTCAACA ATATTCTTCC AAAATGGCAT ACATCTTTTG TACAAAGAAC TTGAAATGTA 60
 30 AATACTGTGT TTGTGCTGTA AGAGTTGTGT ATTTCAAAAA CTNAAATCTC ATAAAAAGTT 120
 AAATTTTGT CTGAAA 136

SEQ ID NO:4998

SEQUENCE LENGTH:53

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05963

SEQUENCE DESCRIPTION:

40 GATCTGACCT CAGAAATATGC TTTCAGTGTT ATTTCTGACT AGTCCTTTTT AAA 53

SEQ ID NO:4999

SEQUENCE LENGTH:334

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05964

SEQUENCE DESCRIPTION:

50 GATCTGCATA AAGTNTTACA AACAAAATCC TCTTNATGAG CAACACATTT TTCAGCTGCC 60
 AGTCAGACCA ACTGCTGTAA AGAACTTATA TCAAAGTGAG AAGCCACAGA AATGGAGAGT 120
 GGAAATATAT AGTGGTCAAA AGANGATTAA GACAGTTTGG CAACTGAGTG ACAGCTCACC 180

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CATAGACCAT CTGANTTTNC ACAAACCTGA TTTTCGGAA TTATCACTAN ACGGTAGCCT 240
 NGAAGAAAGG NTATNCTTTN CTANCATGGT TACCTGCAGC CAGGTGCATT TGCAAGTGAN 300
 GTGTGCTGGT TGANGTCCTC TTNTAAGGGN ATTN 334

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SEQ ID NO:5000

SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

10

TOPOLOGY:linear

CLONE:HUMGS05966

SEQUENCE DESCRIPTION:

GATCTTCCAC TAGATGTCAC CAAAAGGACT GAGAACTAGA GAAAAGGGCT GCGATTTCTG 60
 CTCTCCTTGT AAGATTGCAC AAAAGANTAA ATTGCATTGA TCGCTGTTTG CATGAAA 117

15

SEQ ID NO:5001

SEQUENCE LENGTH:290

SEQUENCE TYPE:nucleic acid

20

TOPOLOGY:linear

CLONE:HUMGS05967

SEQUENCE DESCRIPTION:

25

GATCCCCCTT CNAGGTAGTG AAAATNAAAT NCGCCGGAGT GTGGCTGCCT TCACCGCGGA 60
 CCCTCTGTCT CTCCTGCGCA ACGTCTGAGC ACAGGAGCCC ATCCTTGGCT CTAGGNTTCC 120
 NCCGCTGGAA GCCTTCTGTT CANACACCCC TTATGNTCCA AGGCCTGATG TGAGCCAGCG 180
 GGGGGTGCAT GGGAAACTGN ACCCNACAAC CCACATCCTN CATCCTGACT GCAGCANTGG 240
 GGTTCCTCCGG CAGGGNTGGG TGAGGNAGGA AGGGGGTCAA GCCTGGNGTN 290

30

SEQ ID NO:5002

SEQUENCE LENGTH:284

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

35

CLONE:HUMGS05968

SEQUENCE DESCRIPTION:

40

GATCACCGTG AATCCGGCTT CCTCTGAGCA TTCGATGGCC TTAGCACCTC ATCAAGCCAG 60
 CACATCCTGC CTGCTGTTGC AGCCTGGCTG GGTTTATTCT TCAGTTACCC TAATCCCATG 120
 ATGCCTGGAA CCTTGATTAC CGTTTTACAT CAGCTCTTGT ACTTTTNAGT ATATTTTCAT 180
 AATGAGTTAT ATTGTCATTT AGACTTTGAA CAGCTCTGGG AAATAGAAGA CTAGGGTTGT 240
 TTCTTAAAGT TTAGCTCATG TTATAATAAA AAGTTGNAAT GAAA 284

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SEQ ID NO:5003

SEQUENCE LENGTH:346

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05969

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SEQUENCE DESCRIPTION:

GATCGTCCCT GGTCACCCGA CTTTGGAATT TGCACCATCA TGTTCAGTG AAGATGCTGT 60
 AAATAGGTTT AGATTTTACT GTCTATGGAT TTGGGGTGTT ACAGTAGCCT TATTCACCTT 120

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TTTAATAAAA ATACACATGA NGACAAGAAA GAAATGGCTT TTCTTACCCA GATTGTGTAC 180
 ATAGNGCAAT GTTGGTTTTT TATAAAGTCT AAGCAAGATG GTTTTGTATA AANTCTGAAT 240
 TTTGCAATGT ATTTAGCTAC AGCTTGTTTA NCGGCAGTGT CATTNCCCTT TGCACTGNAA 300
 5 NGAGGAAAAA NNNGGNATTA AAAGGGTTGC CAANTTGGCA AAAGGN 346

SEQ ID NO:5004
 SEQUENCE LENGTH:337
 SEQUENCE TYPE:nucleic acid
 10 TOPOLOGY:linear
 CLONE:HUMGS05970
 SEQUENCE DESCRIPTION:
 GATCTGCTCG CCTCGGCTC CCAAAGGATG GGATTACAGG CACCAGCCAC TGNGCCTGGC 60
 15 TGGCCTCTGN TTTTAAATAA AACNTGACTA GAGTGACTCC ATCTTAAAGT GAGTAGCTAG 120
 GCACCTACAA GGTTCATGCT TATGGCCTGA AAATAACCAC ATCCCAGGCT GACCACCAAT 180
 TATAATTACA GANTATTTAT GGCCATACAG NNCATGNTCC ACCAAGCCTG CAGAATGTCC 240
 AAATNTCCTA AGAATGCAGC CNCCATTACT TANATATANC ATAAATGAGC ANGCTTAGGT 300
 20 TGCAGGNTTA ATGGTCGTGG ATANCAGCAT TNGNCCN 337

SEQ ID NO:5005
 SEQUENCE LENGTH:211
 SEQUENCE TYPE:nucleic acid
 25 TOPOLOGY:linear
 CLONE:HUMGS05974
 SEQUENCE DESCRIPTION:
 GATCAGGGTT ACATAGGTTT GGTAATAATNA GTGCTGGAAA TNACTTTCT CCCAGTAGTC 60
 30 TTAGGTCATG CTCAGTGAAC TTAACCTTTA TCCAGATATG GTTTTCCTTC AGCCTTTCTA 120
 TTCCCTTTCT AGCCAGTGAA AGACCCGCTG CCCTTTGACC TCAGCCCCCTC CAAGCCCCCA 180
 AGTTTAAAAA GCCACCCNCT GCCACCAGAA A 211

SEQ ID NO:5006
 SEQUENCE LENGTH:103
 SEQUENCE TYPE:nucleic acid
 35 TOPOLOGY:linear
 CLONE:HUMGS05975
 SEQUENCE DESCRIPTION:
 GATCCTCCTG CCTTGGCCTC CCAGGGTGCT GGNATTGTAG GTGTAAGCCA CCAGGCCAG 60
 40 GCTAACCCTT TATAAGAAAT AAAGTCTCCT CTCAAAAATT AAA 103

SEQ ID NO:5007
 SEQUENCE LENGTH:265
 SEQUENCE TYPE:nucleic acid
 45 TOPOLOGY:linear
 CLONE:HUMGS05976
 SEQUENCE DESCRIPTION:
 50 GATCCGTCTG GGCACGCTGG AGCAGGAGGC CACAGCAGAC GTGGAGTGGC GCTGGCACCC 60

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TTACACCAAT ACCGCACGCA AGAGAGTCTT CCTGAGCACC GAGTGAGCAC ACTCACCCT 120
CAGTCAGGAC ATGGACTTGG AACTCAGGAT TGGGCTGTCA TAGACAGACC CACCAGTAGG 180
AACTGTCACA GAATGGCCTG CTGAACTGGG ATGTGGAAC TGGCGGGTG GAGAGGTCTG 240
AATAAACCGT CTGTGTCATG GCAAA 265

SEQ ID NO:5008

SEQUENCE LENGTH:308

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05978

SEQUENCE DESCRIPTION:

GATCATCAGC AATNCCTTCT GCACCANCAA CTGCTTAGCA CCCCTGGCCA AGGTCATCCA 60
TGACAACTTT GGTATCGTGG AAGGACTCAT GACCACAGTC CATGCCATCA CTNCCACCCA 120
GAAGACTGTG GATNGCCCCT CCGGGAAGCT GTGGCGTGAT GGCCGCGGGG CTCTCCAGAA 180
CATCATNCCT GCCTCTACTG GCGCTGCCAA GGCTGTGGGC AAGGTCATCC CTGAGCTGAA 240
CGGGAAGCTC ACTGGCATGG NCTTTCGTGT NCCCACTGGC AANGTGNTCA GTGGTGGTNC 300
NGANCGTN 308

SEQ ID NO:5009

SEQUENCE LENGTH:336

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05980

SEQUENCE DESCRIPTION:

GATCCGATTT GTGGAGGATG AGAAAGATGA AGAAGACAAT NAGACGAGAA CACTTCTAAG 60
GCGAGCCACT CCACACCCAG GGGAGTTAAA GCACATGAAA AAGACAGTGG AGAATTTACG 120
GAATGACATG AATGCTGCTA AAGGACTGGA CTCAAACAAA AACGAGGTCA ATCATGCCAT 180
TGACCGAGTG ACCACTTCTG TGTAGAGTTT CACCTCCAAG TTTTACCTCC TGTGTCTTCC 240
TCTGTGTCTG AGACGTTTCT GTCTGCTTNC CGGGAGCCTC ACGTGCTCCT TGTCTTAACC 300
AGCCCCCGNG NGCCATCTTT CCCGTGGAGT GTTGTN 336

SEQ ID NO:5010

SEQUENCE LENGTH:327

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05981

SEQUENCE DESCRIPTION:

GATCGCTTTT NTGACTGTTC ATCTGTCCTT GACAGTGGCT GTCATATTGA CTACTTTNTT 60
GATTTGTGTG TATTGGGGAC ATTTTAAAGG CTGAGTTATT TTTGAATGTC ATGTTTATGT 120
CATAGACGTA GTTTTCGCAT CCTTGAATTA AACTGCCTTA ACTCCTTTNG TGGTATAAGC 180
AAAACCTCAT GGNCNNGTCT CTGGTATCCT TTTCTGTGT GGTGCGCTG TGTCTCTTGG 240
CCTAGGGTTA AGTNTGCAAG ATAATACTC GTGAGTATTC AGAATGTNGT NCCTAATAAA 300
TGCACITGTN GTCTGTCTTC TTTTNN 327

SEQ ID NO:5011

SEQUENCE LENGTH:326

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05982

SEQUENCE DESCRIPTION:

GATCAAGTTT TAAATCCTCC TCCTTCCCTT TTNCTGGAG TTTGAGGGC CAGAGTTTNN 60
 NTTTTNTTT TTGTTTTGT TTTCTGCTT GCTACTGTTT TGTGGTGTG AAAAGTGGTT 120
 TAAACCTGAG ACTAACTTAA ACACTTCCCTT GACCTTCTNG TTGCCTGTNC ATTTTGTGC 180
 CAAGGAAGTA GCTGCCCCAG TGTATGTCTT GCCTTCTCCG CGTCATTGTT GGAAGAGGAG 240
 AGATGCATCG AGCAGTCCCA GCTGCTTTTC ATTTATAACG GCTTCTTTCC AGGACCTGAC 300
 AGAAGTCAGG GAAGAGTCCC TGGGNN 326

SEQ ID NO:5012

SEQUENCE LENGTH:326

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05983

SEQUENCE DESCRIPTION:

GATCATTTGA CTGGGCTGGA GAACATCCTT TTACATGGCC NTCCCATGGA TGTGCTGTAC 60
 ATCTGCTTAA AAGAAAATAA TTACTTTNAT GAGCGTCTTC AAAAGGACTC TTGGTGCAAC 120
 AGACTNAATT GGAAGTCAGC TTTTCTAACT GTCAGTGCAC CAAGCTCTGC TGGAGGAGTG 180
 ACCAGACTCA CGATTTGGTA TAGTGGGGCT CTCAAGCATC TTCAATTTGA ATGTACATGC 240
 TGCTGAGGAG CCGGTGAAGT CATCAGTTCC GCACATCCCT TCTACCCTNC AACTGCATGG 300
 GAAGCCAAAG TNCTGGTTTT GAAGAN 326

SEQ ID NO:5013

SEQUENCE LENGTH:327

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05984

SEQUENCE DESCRIPTION:

GATCTGGGGG CTAGCAGTGA GTACCCGCAT GGTATCAGCC TGCTCTCCC GCCCAGGCC 60
 TGCTGTCTCC AGGCCTATAG ACGTTTCTNT CCAAGGCCCT ATCCCCCAAT GTTGTCAGCA 120
 GATGCCTGGA CAGCAGAGCC ACCCATCTCC CATTACATG GCCCACCTCC TGCTTCCCAG 180
 AGGACTGGCC CTACGTGCTC TCTCTGTC TACCTATCAA TGCCAGCAT GGCAGAACCT 240
 GCAGCCCTTG GCCACTGNAG ATGGAAACCT NTCAGTGTCT TGGNATGACC CTACCNAGGT 300
 GGTGGGTCTC CAACANAGCC ACTTGTN 327

SEQ ID NO:5014

SEQUENCE LENGTH:293

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05987

SEQUENCE DESCRIPTION:

GATCTCAAAA AAGAAGGAAT TTCTCCTTG TTTCTGCAG TTAATGTAAG AATACTTTAA 60

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ATCTCTAAGC TTCTGAAGTG TTAGAGGTAG AGATGGTCTA GTAAAGATGT AGTAGTAATG 120
 TTTTATCCAT TTAGCATGTG TTTATNTNTC CATATGTNCT CAAAGGTGAC TTATTGGTTC 180
 ACCTCAGTGA TATTACAGCT AAANNNTCA TTCATTAGCA AAAGGNAAAAG TGGTCTCAAC 240
 CTAACATCAG ANGTGTTTCT NATTATGNTN TNATATTGCG TTGGANTATT GGN 293

SEQ ID NO:5015

SEQUENCE LENGTH:71

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05988

SEQUENCE DESCRIPTION:

GATCTATACA GGTATGTCTG ACGGGACGCA GCACCGTGGG CACGCACCAA ATAGAGTTT 60
 TAAAAGAGAA A 71

SEQ ID NO:5016

SEQUENCE LENGTH:354

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05989

SEQUENCE DESCRIPTION:

GATCCTNTTC TTTCAGCAGG TGAAAAATAA AACGCAGTTC AAATTTTCATG GTTTTAATTT 60
 TCANCTCAGA AGCACTCAAA AATGCAAAAT GTGATAATGG GCACTTGTTT AAAAGANTTA 120
 GTGTATCCAG CCTTCACTCC AGCTGGTTAA AAATGTTGCA CTTNTCAGCA ACCCTACCAC 180
 TTTCATCTGC TGAAAGGNCA NATGTGCTTG GTTTTACNAT TATGTAATCA CAACTTACTT 240
 TCTGCTTGTN GTNGCTTAAA ATTATGTATT TGGTCTTTGG GCTGCAANTT GGTTTTATGC 300
 TGGATTGAT GNTNACTGGC NGNNAGTTTG ACCTTGCTG NTATGGGGAA ANTN 354

SEQ ID NO:5017

SEQUENCE LENGTH:149

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05991

SEQUENCE DESCRIPTION:

GATCGGAAGA GGGAGGAGAG GCAGTCTCTT NACAAAATAA AGTATTTTAA TTCATTNTA 60
 TTTATTAAAT NAAAAACAA TCCCATGGTG TCCCTNTTGT TTGGTGGAAC CTAATGACTG 120
 TNGAAATAAA GTCCTGTNTT TNCCTAAA 149

SEQ ID NO:5018

SEQUENCE LENGTH:259

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05992

SEQUENCE DESCRIPTION:

GATCCAAAAA CCTCCACCAT AGAGACTGAT AAATTGTAGC TATTGAAGCT GTACTNCTT 60
 GTACATAGGT GCTTTGGGAG ACTCACTCTG ATTATTGTAA ATTNCTCAC TAGCTACCCA 120

ACATTAAATT CAAATAACAG AGAATTCTA TTGTACAGCC TTGCAACTTT NCTTTAAGTT 180
TAANCTTTNC TNNAATAA AATTTTAAAGT GGCAAAAATN ATTATTAGAN GAGAAAANGT 240
GTGCTCATT TTNANTATN 259

SEQ ID NO:5019

SEQUENCE LENGTH:173

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05993

SEQUENCE DESCRIPTION:

GATCACCTGA GGGGAAAGGN TTGTNTCTCT CTTTCTGTT GGGNGAGGGG GATGGGGGAC 60
TTTTNTTGGT GGCTCCCACC CATATATCCC TCCTTNACCA TAGTACTCCC ACCCACTTCC 120
ATCACCCATC CAATAAAATG CAGCCAGGTT TAGCCTTTGG CTTTGGTCAC AAA 173

SEQ ID NO:5020

SEQUENCE LENGTH:266

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05994

SEQUENCE DESCRIPTION:

GATCTACCCT CTAGTTTACT TGCTCGGGAG AAGAACTGA CTCGTTTTAT TTAGTGCCTA 60
TTTAGCGAGC CCAGAGTAAC GTACATTTGT NCTGTTTCA ATTTGTGCT ATCGCAAATC 120
ACAAAAAAC TGTTATCAAT TCACATTCAT CATCAGCACG AGACCCATTT CCTTGTGCTC 180
CTGCCAGCTC AGGNTATNAT GTTCTTTTT TCATGTTTGC CAGTCTGTTA GGTAAAANGT 240
CATATGCCGT TGTTTAAAT TGCAAA 266

SEQ ID NO:5021

SEQUENCE LENGTH:121

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05996

SEQUENCE DESCRIPTION:

GATCAAGGTG ATTCTGAAAG TTTTAATTTT TAATGTTGTA ATGTTATGTT ATTGTTAATT 60
GTACTTTATT ATGTATTCAA TAGAAAATCA TGATTATTA ATAAAAGCTT AATTCTCAA 120
A 121

SEQ ID NO:5022

SEQUENCE LENGTH:58

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05997

SEQUENCE DESCRIPTION:

GATCTAGTTG TATTCTCAT ACTAGCAATG AACAATTGGC AGTTGAAGTA AAAGCAAA 58

SEQ ID NO:5023

SEQUENCE LENGTH:238
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 5 CLONE:HUMGS05998
 SEQUENCE DESCRIPTION:
 GATCGTAATA TCTCGAACAT TACATAGACA CTTAAACCT TTAGTTGTAT TTCATCAAAA 60
 ATCTGTTTAT GCCCCACGTT GGTTTCAAAA CATACTATGC TTTNCTTCG TGTATTTC 120
 10 TATATNCATT TTNGTGTGTA TGTGTATGTC ACAAATATTG ATATGCCTGG TTGTTTATTT 180
 TGGTNTGCTA TTATGCCTTT TTCAAAATAT AAAANTAAAC TNGTAANTNC TAACNAAA 238

SEQ ID NO:5024
 SEQUENCE LENGTH:198
 15 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS05999
 SEQUENCE DESCRIPTION:
 20 GATCGAGACC AGCCTGACCA ACATGGTGAA CCCTGTCTCT ACTAAAATAC AAAAATTAGC 60
 TGGGCGTGTG GGCACACACC TGTAATCCCA GCTACTCAGG AGGCTGAGGC AGGAGAATTA 120
 CTTTAACCTG CGGGGGGAGC CTAGATTGCG CTACTGCACT CCAGCCTAGG CAACAGAGGG 180
 AGACTCTGTC TCATTAAA 198

25 SEQ ID NO:5025
 SEQUENCE LENGTH:301
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 30 CLONE:HUMGS06000
 SEQUENCE DESCRIPTION:
 GATCTTGTGT CAAGTTAACA GGAAGACTGC CCACAGATGA CACTGCATTT GTATCCCTGT 60
 GGATGTAGAG TATTGGGAAG GCATTNTTT AGTTTCATGC CTCCAAACCA TGCATTGTCT 120
 35 GTNATGTATC TGCCAGCCT TCTCAGAACT CAATGTTGTA CATTTTCCC TCTAGGACCT 180
 GAATTGGTCT TGGAGGCAGC TTTTAGAAAT CCTCTATGTA GTTCCTGTCC ACATGCACTA 240
 TATATNGGTT TCTCCNNGNN CCTCTCATGA ATCTGCTCGT TTCTCTACNT CTTGGCTACG 300
 N 301

40 SEQ ID NO:5026
 SEQUENCE LENGTH:301
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 45 CLONE:HUMGS06001
 SEQUENCE DESCRIPTION:
 GATCCTGGTA ACTGTTCCAG GATTGCTCCA GGTGAGAT GGTATTGCTA AATTTAAAT 60
 TAAACAAGAG ACCCAACAAC AGCTTTTAAA GTGTCTTCTA TNGCATTGTA TTTNNNTNAA 120
 CTTGCCCAA TGATAGAAAA GTCTTTGCT GAAATNATTT TNATGATTTT GGTATTATCGT 180
 50 TTATAAANG GAAAAGANAT ATACAACTT TGACTTTGGT GACTTTGTGA AGGTTTCTTT 240
 AAGATGTGCA TTCCTTTCTG CTTCNCCTCT AGTAAAGGNT TACTACCGG GAAAAAAG 300

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301

SEQ ID NO:5027

5 SEQUENCE LENGTH:117

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06004

10 SEQUENCE DESCRIPTION:

GATCANGAAA AAGACAAAAT CTNTCAAAGC CTTCAAAACC AGGAAAAGAT AAGGAGCCCA 60
 GGAAAAGNAA AAGGTAAAGT TCGAAGAANT TTAACCATT TTNACTAGCG ACAGCAN 117

SEQ ID NO:5028

15 SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06005

20 SEQUENCE DESCRIPTION:

GATCAGGAAT GGTGTGGATT GAGAACTTGT TACTTGAAGA AAAAGAATTT TGATATTGGA 60
 ATAGCCTGCT AAGCGGTACA TGTGGGTATT TTGGNGTTAC TAAAAANNA TTTTNGGGAT 120
 AAGAGAATTT CAGCAAAGAT GTTNTAAATA TATATAGTAA GTATAATGNA TANTANGTAC 180
 AATGGAAAAAN ACAATTATAT TGTAAAAATTA TANCTGGGCA AGCATGGNTG N 231

SEQ ID NO:5029

SEQUENCE LENGTH:194

SEQUENCE TYPE:nucleic acid

30 TOPOLOGY:linear

CLONE:HUMGS06008

SEQUENCE DESCRIPTION:

GATCATGGAA CAGAATCACC CTCTCCTGCA TGTTTTNTT TCTGTCTCCT GCTTTNCTGT 60
 TCTTTTCCA CTTTCTCTAT GTGTGAGTTG ACTTGGCTGC CTGTAGCTTC ATCGTCAAAG 120
 CTGGTCCACG TGGGNTCAAC TTGGTGTCT CACTCTCCTC CAGCATTGTT TTTGGCATCA 180
 AAGCTAGAAT TAAA 194

SEQ ID NO:5030

40 SEQUENCE LENGTH:89

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06010

45 SEQUENCE DESCRIPTION:

GATCNTTTT AAGAGCGTTT CCATACTATG NTTACATTTC CATATTTNTA TGAATAATTT 60
 TGCATTCAAT AAACAACCAG ACTCAGAAA 89

SEQ ID NO:5031

50 SEQUENCE LENGTH:174

SEQUENCE TYPE:nucleic acid

55

TOPOLOGY:linear

CLONE:HUMGS06011

SEQUENCE DESCRIPTION:

5 GATCTTGGAG AGTTTCTCCT TGTGATTTTA GTTCATAAGT ATGTCACCTT TCATTTTATA 60
 GNGTTCATCA TTGAGTAATG GATTAAGTGA AAATCCAGGA GTATCCATCT NCAGTTATGT 120
 NCTGAGGTGA TAATNCATCC AACATATTTN TNAGCATAAA TATNANGCTT CAGN 174

10 SEQ ID NO:5032

SEQUENCE LENGTH:260

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06013

15 SEQUENCE DESCRIPTION:

GATCTAAAGC AGCCCTTTTT ACAGTCTAGT TAGGAGAGAG AAAATAATTG CAAATATCCA 60
 CTTAGAGGCA AAGAACAATT TTTNATTATC AAAAAGGTTT CTGCACATTG TTGTGGCAAT 120
 ATTGTATCTG TTTAGAAAAT GGGCTTTTCC AAAAGCAAAC AAAGATAGGT TCCTCAGGTG 180
 20 ACCAAAAC TG AAAATCAATA TTTCCATGTT TCATTAATCA NGGCATAAAA TACAATTAAN 240
 GCAAAATATT TTACATTAAA 260

SEQ ID NO:5033

SEQUENCE LENGTH:85

25 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06014

SEQUENCE DESCRIPTION:

30 GATCTCTGGA GGTGAGGCT GCAAGTGAGT CATGTTCTGT TCACTACACT NCAGCCTGGG 60
 CGATAGAGTG AGAACCTGTC TCAAA 85

SEQ ID NO:5034

35 SEQUENCE LENGTH:352

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06015

SEQUENCE DESCRIPTION:

40 GATCCAGAAC ATGACAACAG AGAGCTGCGT CCACAGGGAA CAAAGCCCTG ACCTNTCTCT 60
 CCACATTACC CTTACAAAAA CAGGCCCTCC CCATGAGAGA GCTACACGGC AGGGGCAGAC 120
 ACTGTGAGTA TAAGCTACTT TCCTCCCTGG AGTGCTCTAT GTGGGCAGAA CATGCTCTCC 180
 TTGCCTCTCC TGGAAGGTGT CTTCTCTATG GCCTGGCTAG AGCTGNAAAA AAGGGACACA 240
 45 CCCNACTTCG GTAAAAAGAA NTAGGGAAAG GCCATATACA NNGNCAGACT TTGTAGTTTA 300
 TTTTGTATTT TTTTNTAAAT NNTTNCCT TTTACATTTA ANGGNAGATT GN 352

SEQ ID NO:5035

SEQUENCE LENGTH:206

50 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

55

CLONE:HUMGS06016

SEQUENCE DESCRIPTION:

GATCTTAATG GCAAGAAGGC CACAGAGGTA CTTTNCCTTN TTNAGCTCAG GAAAATATGT 60
 CAGGCTCAAA CCACTTCTCA GGCAGTTTAA TGGACACTAA GTCCATTGTT ACATGAAAGT 120
 NATAGATAGC AACAAGTTTT GGAGAAGAGA GAGGGNGATA AAAGGGGGAT ACAANNGATG 180
 TACAGAAATN NTTCTCTGGC TGN CN 206

SEQ ID NO:5036

SEQUENCE LENGTH:351

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06017

SEQUENCE DESCRIPTION:

GATCTGGCCA TGTATATGGT AGCTGTGTTT TAATTGAGA ATCTTGAGGG TAGAGCCACA 60
 AATTCAATT CTNACATTTC CATTTGCAAA GTGACTAGAG AAAAGAAAT CAGCTTAAAT 120
 GAGGTATTAA GTAATGTTA GAGTCGTAGG TATTAAGTAG AATATAAATC CTTAGAAATT 180
 GTCTTTATAC CTTCAAAAAT TATNCTATGC ATTTNTCATA GANCTGTGAT TACAANGNNG 240
 TCTGACTACC ATGTCTTAA ACATATGGCA TCTCTCATCT TTCCTTCCCT TATGGGGGCT 300
 ACATTTNGTN CCATTTTCCA GNAGTAGNCT TTAAGTTNCC GGTGCCNNNC N 351

SEQ ID NO:5037

SEQUENCE LENGTH:131

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06018

SEQUENCE DESCRIPTION:

GATCCTGAGA CTATNTGCAT GCTNCTNTCT AAATGATAAT TAANAGGAAA TTTCATGGAT 60
 TAACCCATGG GTTAAATGCA GCAAGGAAAC TTACAATGTC CCTNTATATA TAACATGCAN 120
 CTTGTTTTGG N 131

SEQ ID NO:5038

SEQUENCE LENGTH:208

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06020

SEQUENCE DESCRIPTION:

GATCCTNCAG GAGATTCAGC GTCTCCGCTT GGAACACGAG CAGGCCTCCC AGCCCACCCN 60
 TGAGAAGGCA CAGCAGAACC CCACGCTGCT GGCAGAGCTG CGGCTGCTGA GGCAAAGGAA 120
 GNATGAACTG GAGCAGAGGA TGTCGGCCCT GCAGNAGAGC AGGCGGGAGC TGATGNGTCC 180
 ANNTGGAAGA GCTGATGAAG TTGN CN 208

SEQ ID NO:5039

SEQUENCE LENGTH:150

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

EP 0 679 716 A1

CLONE:HUMGS06021

SEQUENCE DESCRIPTION:

GATCTGAGTG ACAGGGTCAA GTTCTCTTTG AAAACAGGAG CTTTTCAGGT GGTAACCCC 60
 CAACCTGACA TTGGTACTGT GCAATAAAGA CACCCCCTAC CCTCACCAC GGCTGGCTGC 120
 TTCAGCCTTG GGCATCTTCA TAAATGGAAA 150

SEQ ID NO:5040

SEQUENCE LENGTH:365

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06022

SEQUENCE DESCRIPTION:

GATCTGCTGG GTTTTAAGGA GTGATTNCT TTCTNCCCCT TGAAGGGGAA AAAGCTATTT 60
 CAATTGGTAC ATTTAAAGTC CCCCACTAT GGGGAGGTAC CAATTCTGGA CANNNTGCCA 120
 CTACAACAAC ACTAAACCTG AACTTTTCAA CTCCGTTGGT GGTGGGAGGC AGCGGGCAGA 180
 AATTACTGT TGGCCACTGN CAGGTCTATT TNATATTCA AAGGAATATT GGGTGCTGCA 240
 TATAGNACT GAAGGGGTCA ATGNATTAAA CCTGTGATTA GGTGNTTTC CTGTCATTTT 300
 TGAGAGACTA AAATNGTGGG GGGGCAGATG TNCANAATAC CTGGTACANG TTTTAAAAA 360
 NTGGN 365

SEQ ID NO:5041

SEQUENCE LENGTH:147

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06023

SEQUENCE DESCRIPTION:

GATCTTNACC TTATTCAGTC AACTCCCTTT AAACCCCTGG CACTGAAAAC ACCACCTCGT 60
 GTACTTACGC TGAGTGAAAG ACCACTAGAT TTTNTGGATT TAGAAAGACC TCNNNCAACC 120
 CCTCAAAATG AAGAAATCCG AGCANN 147

SEQ ID NO:5042

SEQUENCE LENGTH:98

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06024

SEQUENCE DESCRIPTION:

GATCCGTCCT CATTTTATTG GTGATGATGA ATGGGAATAA AATNAGGGGG CTGTCTACTA 60
 GAGCCTGGAA TAAATATGCT GCTTTGTGGA TTTTAAAA 98

SEQ ID NO:5043

SEQUENCE LENGTH:208

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06025

SEQUENCE DESCRIPTION:

5 GATCTGTATG TNAATATCGC CAAGCAGGAT ATCATGTTGT CCCTGGCAAA CCTGGTGAGA 60
 CTCAACCAAG CCCTTTTCC CCCAAGCAAG AGGAAAATGG AATCTNTGTA TCAGTGTGGT 120
 TTTGATGACA CTGTTAAGTT TTTACTTAAA GAAAATTGGT TTGAATAAAA TGCATAAAAG 180
 TTTATANTGC ATTNNATTGT NNANNTGN 208

10 SEQ ID NO:5044
 SEQUENCE LENGTH:211
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06026
 SEQUENCE DESCRIPTION:
 15 GATCTTTGCC CACCTCTTCC TCAGAGCCCC CACTGAGGGG CCGTAGCCCT ATCTAGGGCT 60
 GTGGAAGGAG CAGACTGGTT CCTAACTCTC TCCCTCCTCC TGCCACACA CATCAAAAGA 120
 ATCTTCCCTA CACCTTCTC TGCCTTTATT TTTGATTG TGCAACTGT AACTAGGTGT 180
 TTATGGAGTA AAGGAGAATG GAAAAAAGAA A 211

20 SEQ ID NO:5045
 SEQUENCE LENGTH:345
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 25 CLONE:HUMGS06027
 SEQUENCE DESCRIPTION:
 GATCTTGTTT ACAGCAGTGC TTTTGTGAAC AATTATTTAT TTGCTGAAAG NGCTCTTCTG 60
 AACTGTGTCC TTTTAATTTT TGCTTAGAAT AGAATGGAAC AAGTTTAAAT TTCAAGGAAA 120
 TATGAAGGCA CTTCTNTTT TTCTAAGAAG GAAGTTGCTA GATGATTCCT TCATCACACT 180
 30 TACTTAAAGT ACTGNGAAGA GTATCTGTAA ATAAAAGGGT TCCAACCTTT TAAANAAGNN 240
 GGAANAACT TTTTGGTGCT CCAGTGTAGG GCTATCTTGT NNANAAANTG TCAACAAGGG 300
 GGAAANGTAA GNCTGTCNAG CTNGGGGATT GGTCACTTGN NTTAN 345

35 SEQ ID NO:5046
 SEQUENCE LENGTH:298
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 40 CLONE:HUMGS06028
 SEQUENCE DESCRIPTION:
 GATCTTATAA ATTTCTGGG CAAGAGTGTA TGCATACAAA GTTTTCACTN TTGTGAAATG 60
 TAATTTTINCT GTTTTGTCAA NGGGATGAGG TGATTGGAAT TGCTTTNACC ATGCTGCCTT 120
 TATTCTCAA CTGGCAAAC TAGCATGTTA GGTGTATTAA CCTCATCAGT CTTGAAGAAC 180
 45 ATGTGGCTCA TGAGTATAAC ACTTCTGTAG NGNNCNCNCCN NACANAAGTG AAGAATTAAC 240
 TTCTCCTNCA GAACAAGTGC ANTTCAGAAG GCAAGCTCTG CATTCTACCT TGNTTGAN 298

50 SEQ ID NO:5047
 SEQUENCE LENGTH:153
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear

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EP 0 679 716 A1

CLONE:HUMGS06030

SEQUENCE DESCRIPTION:

GATCGGGGAG CCACAGGGTG TCCAGACCCA GCGGGAGCCG AGGATTCAGG AGAATCTCCC 60
CAGTCAGCTT CAGAGGTGCC CACAGTNTGA GCTCTAGTGT CTNCCAGGTA GGGGGNCAAA 120
GCGGNAANCT GNCCGGGCCT NGGGGGTGCA AGN 153

SEQ ID NO:5048

SEQUENCE LENGTH:351

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06031

SEQUENCE DESCRIPTION:

GATCAACATT CGCAATGCCC GGAAACACTT TAAGAAGCTG GAGAGAGTGG ATGGCCCCAA 60
GCACAGTCTC CTTATGCGTT GAATATTGCC AAATNCTCTT NCTGAAAATC CTGAATTGCC 120
TTTTTNGTTT GCATCCTTTA TTTTNAATAT TCATAATGTC GTGTGCTTAA AAGTGGGCTT 180
TGAAGTGTGT GCTGCTTACT CCTNTCATCT TTCTCCCCGC TTCCCAGTC TTAAACATT 240
GGACGNTATT TACTCAGCTA CCCAGTAGAG CTTGAAGCTG ACCTTTCTGA GAAAGTTGGG 300
TATGTTGGTA ACACTTAAAG TAGGTGGTTC CGTGTGGTGT TCTTCANTNN N 351

SEQ ID NO:5049

SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06032

SEQUENCE DESCRIPTION:

GATCAACAAA TTGCTCAACC TGCAAAATCT TTGATTAGAC TTAGCCAGCC CATCTGGCCT 60
GCTTTGGGTT TAAAAAATAA AAAAANNTTT TTTTAACCNC ANAANTGGAA AAAGGGGAAG 120
GGNN 124

SEQ ID NO:5050

SEQUENCE LENGTH:218

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06034

SEQUENCE DESCRIPTION:

GATCATGACT ACTGGGTTGT CATTTCAATG GACAGTGCTA TGAATAAGT ATTTTTGAAA 60
NCAACGGAAA TAGTTTATAT CGATATTCTT GATTCAAAT TANCCATCCA ATTGTTTAAT 120
TAACCTTACT GATTTTTTAC CTATATCACT TTNCTCTNAC ACTGNAANTA TTAGTTCTAN 180
TAGCATTATG NCANTTACCT ATGTTGCTTT ATGAANGN 218

SEQ ID NO:5051

SEQUENCE LENGTH:128

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06035

SEQUENCE DESCRIPTION:

GATCAATGCT GGCTTCCACG CCTGANTTCT ACCAAGTATG CCACACCAAA AAGGATTATN 60
 AAGAAATTGG ACCTAGCATT TNCGTGACA ATCCAGTGTT TGGAGTCATG TCGTAAAATT 120
 GNCNCCNN 128

SEQ ID NO:5052

SEQUENCE LENGTH:234

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06036

SEQUENCE DESCRIPTION:

GATCTCATTG AGATTCCAAA GAGAATCATT TACAAGTTAA TTTCTGTCTC CTTGGTCCAT 60
 TCCTTCTCTC TAATAATCAT TTAGTGTTCC TCAAAGAATT GTCTACATTA CCCATCTCCT 120
 CTTTGGCCTC TGAGAAAGAG TATATAAGCT TCTGTACCCC ACTGGGGGGT TGGGGTAATA 180
 TTCTGTGGTC CTCAGCCCTG TACCTTAATA AATTGTATG CCTTNNCTCT TAAA 234

SEQ ID NO:5053

SEQUENCE LENGTH:145

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06038

SEQUENCE DESCRIPTION:

GATCTGCAAG GCATAGGCAA GCCTCTTAGA GAATCAGAAA AGTGATTGG AAGGAACTTC 60
 AGCTGTTACT ACTTTGTTA AGCAAATCAA ATGCTGTTCT TTAATGTTAC TGGACGTTTC 120
 AAATTAACA CAAGAAAACC TGAAA 145

SEQ ID NO:5054

SEQUENCE LENGTH:124

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06039

SEQUENCE DESCRIPTION:

GATCAACTGA AGACCCCAA AGGCCCTAC TTGATGGTTT TGAGGGGCAA CATTGACTCA 60
 TTTGCCCCNT CCCTCTCGGA ATGTTGGACA AAGGGAATAA AATTGGGGAT ATGCTACTT 120
 CAAA 124

SEQ ID NO:5055

SEQUENCE LENGTH:118

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06040

SEQUENCE DESCRIPTION:

GATCTAAAAC ANCTTCAGAC TACCTANGAA ATANTTNAC CAAATAAGAA ACAGCACTGT 60
 GGAATAAAAT ATACCATTGT GAACATATCT GATGCTGCAA TGAAATGTAA AGTTCCTN 118

SEQ ID NO:5056

SEQUENCE LENGTH:316

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06041

SEQUENCE DESCRIPTION:

GATCTCCTAC TCCATCCAGT CCTGAGGAGC CTTAGGATGC AGCATNCCTT CAGGAGACAC 60
TGCTGGACCT CAGCATTCCC TTGATATCAG TCCCCTTCAC TGCAGAGCCT TGCCTTTCCC 120
CTCTGCCTGT TTCCTTTTCC TCTCCCAACC CTCTGGTTGG TGATTCAACT TGGGCTCCAA 180
GACTTGGGTA AGCTCTGGGC CTTACAGAA TGATGGCACC TNNNNNAACC CTCATGGGTG 240
GTGTCTGAGA GCGGTGAAGG GCCTGGAGCC ACTCTGCTAG AAGAGACCAA TAAAGGGCAG 300
GTGTGGAAC GGCAAA 316

SEQ ID NO:5057

SEQUENCE LENGTH:106

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06042

SEQUENCE DESCRIPTION:

GATCTATTTT TTTNCACTTG TATAACTTTG NAATAAATNC CTCATCCCTT AGACTAAGAG 60
AGTGGGTGTC TGTGAAAATN GTNTTCTCCT TCATAATACC TAAATN 106

SEQ ID NO:5058

SEQUENCE LENGTH:74

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06043

SEQUENCE DESCRIPTION:

GATCGAATTT AAAAGAACAA TGGAACCCTG ACTACGTTTC AACAAAAATA AAACNGTTT 60
TTTTCCCTCC TAAA 74

SEQ ID NO:5059

SEQUENCE LENGTH:325

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06044

SEQUENCE DESCRIPTION:

GATCTCTGGC GCTGGCAGAA GCAGAATCCT TCAGGCTTTG GCANGCAAGC NTGAGGACCC 60
TCCCCTACCA AGGACCAGGA AAAGCAGCAG CTGCCTGCTC TCCAGCCTNT GGCAGGAACT 120
CAGGGCCCTG GAGCTGCTGG GGCCAAGCCA AGGCCTNCCC TACCTCAAAC CCCAGCTGGG 180
CCCGNTTAGC CCACCAGGCA TGAGGCCAAG GGCTCCACTG ACCAGGAGGC CGAGGTCTCT 240
AACTCTTATN TTCCACAGGG TCCAAGAGTT CATCAGGACC NNNAAGAGTG AGTTNAGGGG 300
GGGCAAGGNT TCTNGNAACA AAAGN 325

SEQ ID NO:5060

SEQUENCE LENGTH:107

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06045

SEQUENCE DESCRIPTION:

GATCTGCCTN TAAAGCCAGT TTAAGAAGCA CTNATGANAA CACCTGGACT GTGTATAGNG 60

ATTGCACATT CCTTATCCTT CAGCTNCAGG ACAGGTGGAG CAAATGN 107

SEQ ID NO:5061

SEQUENCE LENGTH:112

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06046

SEQUENCE DESCRIPTION:

GATCTCAGAG CATTCAATT AGGGATGCTC AAACGCAACT TTTTCTACTT CCCCATTCA 60

GGTGTGAGAT GTAACCCACC TTNACCATAA ATTGGCTTN NATAGTGCTA AA 112

SEQ ID NO:5062

SEQUENCE LENGTH:298

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06047

SEQUENCE DESCRIPTION:

GATCACAACA TACAAATTCA ATTCAGTGCA TGCTTTAGGT GTTAAGCATG AGATTGTACA 60

TGTTTACTGT TAGGTCCTTG CATCTGTGGT GCTAGGTGAG TATGAGAAGA TGTCAAGGAC 120

TGGACGTATT TTGTTGCCTA AAAAAAAAAAG GNTGTTTGTN GGCCTTTTAA ATATGCTTAT 180

TTNGTGTGTC NCNNNCTACC TTTTACACAC TGTTGCTTTG TGGGTTTGTT TNGNATGTGC 240

GTGTGTTATA CAGTNGTTAA ATTTCCNTGC AGAAAAATAA ATGTCCNGAA TTCTCAA 298

SEQ ID NO:5063

SEQUENCE LENGTH:62

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06048

SEQUENCE DESCRIPTION:

GATCTCCCAG TGAGCCATCA CGATGCCCCN TTTCAAATAA ATNTTAATAT TGTCACCAGA 60

AA 62

SEQ ID NO:5064

SEQUENCE LENGTH:55

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06049

SEQUENCE DESCRIPTION:

GATCTNCTGC CATGATGCCT ATTTGGTGTN TTTCTAATTA AAATGAAATC AAAAA 55

SEQ ID NO:5065
 SEQUENCE LENGTH:51
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06050
 SEQUENCE DESCRIPTION:
 GATCGCATCA TTGCACTCTA ACCTGGGCAA CAAGAGCAAA ACTCCATCAA A 51

SEQ ID NO:5066
 SEQUENCE LENGTH:210
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06051
 SEQUENCE DESCRIPTION:
 GATCTGCTGA AAGGNAAGCA AGAACTATAA GGAGGNTGTG TAGTTGCAAA AATGGCTCCA 60
 TCGGTAACTC AAGCTTCAGA ATGTTATGAC ATACAGAAAA TCAAAGATGC TGTGTCTTAG 120
 CATTGAGTAA TATGGGTGGT GCTGTCTGGT CAGATTCAGT NAACTGTTCA GAACAAAATT 180
 NCCTCTGAAA TNCNGTTGAG AAAGNCTGTN 210

SEQ ID NO:5067
 SEQUENCE LENGTH:211
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06052
 SEQUENCE DESCRIPTION:
 GATCAAGTCA GCATTGCGG TCGGGATTG GGCAGGGAAC TTTGGGGTGC AAATATCTGG 60
 TGAAACCACC AGAGAATTTN TTTGTCAAAG TGACATGTAT AATTTTAGTT GAGACGTGTT 120
 TGTGTATATA TGTGTATTTG CCTTTNTTTA GTAGCACGGT TATTTGCTAA AATAATTGTC 180
 AAAAAATTGC TCTGTCGGTC GGTCTTTGAT N 211

SEQ ID NO:5068
 SEQUENCE LENGTH:230
 SEQUENCE TYPE:nucleic acid
 TOPOLOGY:linear
 CLONE:HUMGS06053
 SEQUENCE DESCRIPTION:
 GATCTAGAAT CTTGTCCTCA GGCTTCTAGG GGNTTATCTG AGTCTTTTAT CTAAGACAAA 60
 TGCAACAGTT TTCTTTTCAA ATGCTCAGAA AAATAGTGAT GATGATGATG ATGATGATGT 120
 TCATTGTAT ACATTIACAT GCAACCACAG CATTGTTTT ATTATAATAC CTTAGCAATA 180
 ACTAATGAGA ACATGTTAGG TGATGTTAAA TAAAAAATT TTTTCCAAA 230

SEQ ID NO:5069
 SEQUENCE LENGTH:108
 SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06054

SEQUENCE DESCRIPTION:

5 GATCGCACGG ATGCAGCAGG AAGACCAGGA GGGGCCGCCT ACGTAGCCCC AGCTCCAGCC 60
ATCCACCCCN CAGCCCTTTN CTNCAACGTC ACCANTAAAT TTNTTTTN 108

SEQ ID NO:5070

10 SEQUENCE LENGTH:339

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06055

SEQUENCE DESCRIPTION:

15 GATCACTGTT AATGATTTGC CTGTGGGACG CTCCGTGGAT GAGGCTCTGC GGCTGGTCCA 60
NNNNTTCCAG TACACAGACG AGCATGGGGA AGTTTGTCCC GCTGGCTGGA AGCTGGCAGT 120
GACACGATTA AGCCCAACGT GGATGACAGC AAGGAATATT TNTCCAAACA CAATTAGGCT 180
GGCTAACGGA TAGTGAGCTT GTGCCCTGC CTAGGTGCCT GTNCTGGGTG TCCACCTGTG 240
20 CCCCCACCTG GNTGCCCTAT GCTGACCCAG GAAAGGCCAG ACCTGCCCTT CCAAACCTCA 300
CAGTATGGGA CCCTGGAGGG CTAGGCCAAG GNCTTTTN 339

SEQ ID NO:5071

25 SEQUENCE LENGTH:102

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06056

SEQUENCE DESCRIPTION:

30 GATCACAACC TCANCNAAGA CCACGANGAA GCCCNCAACA GCCACGCCCA CGACTGCCCG 60
GACGAGGCCG ACCACAGACG TAAGTGCAGG TAAAAATNGA GN 102

SEQ ID NO:5072

35 SEQUENCE LENGTH:231

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06057

SEQUENCE DESCRIPTION:

40 GATCGCCTTA ATACCAGAAA TGATTAGAAG TGCTGATTTA GATTCAACAA ATACCATATG 60
TCCTTATCAT TTTTGTAAAG AAGAAATTGG TTAAGTCCTA ACTTCAATG TGTACCCAAA 120
TACTTGATTT TTATGCTTTT NATAAAATGT AATTTCAGC ATTANTACAC ATCCGATTAT 180
GCCTTATTTA TATATGGNGG ANTAAAGGTT ACCATGTTTA TACCTGTAA A 231

45 SEQ ID NO:5073

SEQUENCE LENGTH:250

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

50 CLONE:HUMGS06059

SEQUENCE DESCRIPTION:

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GATCTTGGTT TCATGTGTTT TTGAAAGTGT TATTGTTTAA AAAATGAAAA AAGCATATNT 60
 GCTAAAGAGC TGTCAGGTTT TCATTACTGA CTCTGTANAA TACACTGNTC TTTGTGTACT 120
 GTGTGTTATT TTGCCAGCT NGCTGCATTA GCCTTCAAAN GTATTTGGGA AACCTNAAGG 180
 ATGAACCTAC AGTTTCTNGC AAAGGTACCA TTNCCTTTCC TGGGGGTANT TTNGGTCCCN 240
 GTNAACTGGN 250

SEQ ID NO:5074

SEQUENCE LENGTH:298

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06060

SEQUENCE DESCRIPTION:

GATCCTCGCG GGCCTCGGAG AATTCCCCCA CTGCCATGCC CTCCCCCAGC TACCAGTGCA 60
 CTAAGGCGCA CTTGGCCGAA CTTATGGTCC AGGCAGGCC AGGCCTCCGT GATGGCCGTG 120
 GTGTTGCTCA GCATGCACAC CGNCCGCTGC ACTTTGGCCA GGTCTCCAC AGGGACCACC 180
 GTGGGGGGCT GGTAGTTAAT NCCACCTGT CAGAGATGGG CAGCATAGAA TGAAGTTTAT 240
 ATGGGGCTCA GAAATGGGGA GCTCATTAAT AATCAGAGCT TGTGGNACCA GTTNCAAA 298

SEQ ID NO:5075

SEQUENCE LENGTH:80

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06061

SEQUENCE DESCRIPTION:

GATCACTGTG TCAATGGAT GGGAAATNTT ATNTTAATAT AAACAGTAAA ATAGCATTGT 60
 TTTCACCTGC AGCTTTNAAA 80

SEQ ID NO:5076

SEQUENCE LENGTH:210

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06062

SEQUENCE DESCRIPTION:

GATCTGTATG TNCAATATGG TAGCTACTAG CTACATACAT CTATGAGCCA GACACTTAAG 60
 CACTTGANGT TTGGCTACTG CACATTGACA CATGGTGTTA GTAAAANCAT AACTGGATA 120
 CACTGGATTT TTGGNCTTAG TATGGAAAAA TATATTANGT ACCTCANTTT AAAAATACTT 180
 ATTACATGTT AATATTTTGG TTGTANNNNN 210

SEQ ID NO:5077

SEQUENCE LENGTH:91

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06064

SEQUENCE DESCRIPTION:

GATCATGTG TATTTNATTT TACTTATTTT TTTTACATTT CCCAAGGCTC TGTATCCAC 60

CTTTCATTA AATCATTCTA CCAATCTCAA A

91

SEQ ID NO:5078

SEQUENCE LENGTH:317

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06065

SEQUENCE DESCRIPTION:

GATCAATGTA AATCCTCACC TGCCCTTTGA AGAGCCAATA AGGGCATCTT TGTCTTTAAA 60
TACAGCAAAT GTTATTCAGA TTTTGTACTT GTCTATCTGT TTACCTCAGT GTAGATGATA 120
TGAGGATGGN ATAACATATGT AAATTGTTTT TGAAAATAAT TTGTTTCCCC ACAACTTTTG 180
AAGGTTTTAT TTGTNGTTGT TATTACTAGT TCAGTCCCAA ACTNACCCTG TCCTTTTCAG 240
AGAGCTAATG GCCATGCTTT NCTTCAAAGG AAAGAATAAT TNATTGGAA TGANAGTGGG 300
GATTACTTTG CATAANN 317

SEQ ID NO:5079

SEQUENCE LENGTH:75

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06066

SEQUENCE DESCRIPTION:

GATCTTTATT CTAACCTTTT TTTGTAAAAA ATATCTATTG ATTTCCATAT GCAATAAACC 60
TTTTTTTCAG AGAAA 75

SEQ ID NO:5080

SEQUENCE LENGTH:139

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06067

SEQUENCE DESCRIPTION:

GATCGCACCA CTGCACTCCA GTCTGGCGAC AGAGTGAGAC TACATCTCAA AAAAAAANGC 60
CGCAATTTTN CATTGNTTC ANCAGANCTC TGCCATTCTA AACATTTCTA AACTTTTACT 120
CTCAATTNCT GTACTTAAN 139

SEQ ID NO:5081

SEQUENCE LENGTH:125

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06068

SEQUENCE DESCRIPTION:

GATCTCATTT TCAGTTTAAG TAACTNCTGT TACTTAAGTG ATTGCACTTT TCTCAAATTG 60
AAGTTTAATG GAATAATAGT TCTCAGGATA GTATTTTGTA AATAAAGATG GNCTTGAATA 120
TGAAA 125

SEQ ID NO:5082

SEQUENCE LENGTH:284

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06069

SEQUENCE DESCRIPTION:

GATCCTACCA TGGCAAGAAG AGCTTCGAGA CTTTCTCTCA CCGCCGCTCT TGCCTGGTGA 60
GGCCTCTAAT GAATGATGAA GGCCTGAAGG TCAGATACCC CCCGAGCCCG GCCAAGATGA 120
CCCAGCACTG AGGAGGGGTT GCTCCGCCCTG GCCTGGCCAT ACTGTGTCCC ATCGGAGTGC 180
GGACCACCNT NACTGGCTCT CCTGGCCCTG GGAGAATCGC TCCTGCAGCC CCAGCCCAGN 240
CNCANTNCTA TGNTGACCTG CTGACCTGTG CACACCCNAC TTTN 284

SEQ ID NO:5083

SEQUENCE LENGTH:280

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06070

SEQUENCE DESCRIPTION:

GATCTAACCA TGACCTGTTT CACGTCATTG ACATTCAAAA TGAATGAAGG GATGANCATT 60
TTCTCTGGTC ATTTTATTATT ATTTATACCC TTTTGCAAAT NCTAGTAGAG AATGAAGTGG 120
AGGAATAAGT TATAAATGAA CAGTGGCTTA TGACTCCAAG AGTTAATCGT GTTATTTTGG 180
TAGCTGTCTG TGTAGGTGTG CATGTNGTTG CGAGTTTGTA TTGNGNTTAA CAAGCAAAAN 240
TTATATNATG NTTCAACTTT CTGGAATATG TTNTAATTN 280

SEQ ID NO:5084

SEQUENCE LENGTH:62

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06071

SEQUENCE DESCRIPTION:

GATCATAATA TGAATNTCCC ACTTATTAAT AGCCTTTTAA TAAATATATA ATTAATTTCA 60
AA 62

SEQ ID NO:5085

SEQUENCE LENGTH:57

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06072

SEQUENCE DESCRIPTION:

GATCTATAAT CACCAAGTGA CTCCACCCTG GGTGACAGAA TAAGACCCTG GCTGAAA 57

SEQ ID NO:5086

SEQUENCE LENGTH:68

SEQUENCE TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS06074